

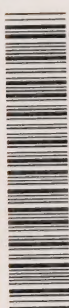
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# The HARBOUR of MONTREAL

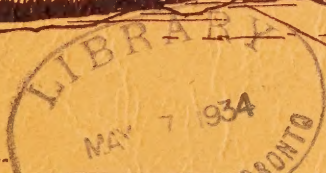
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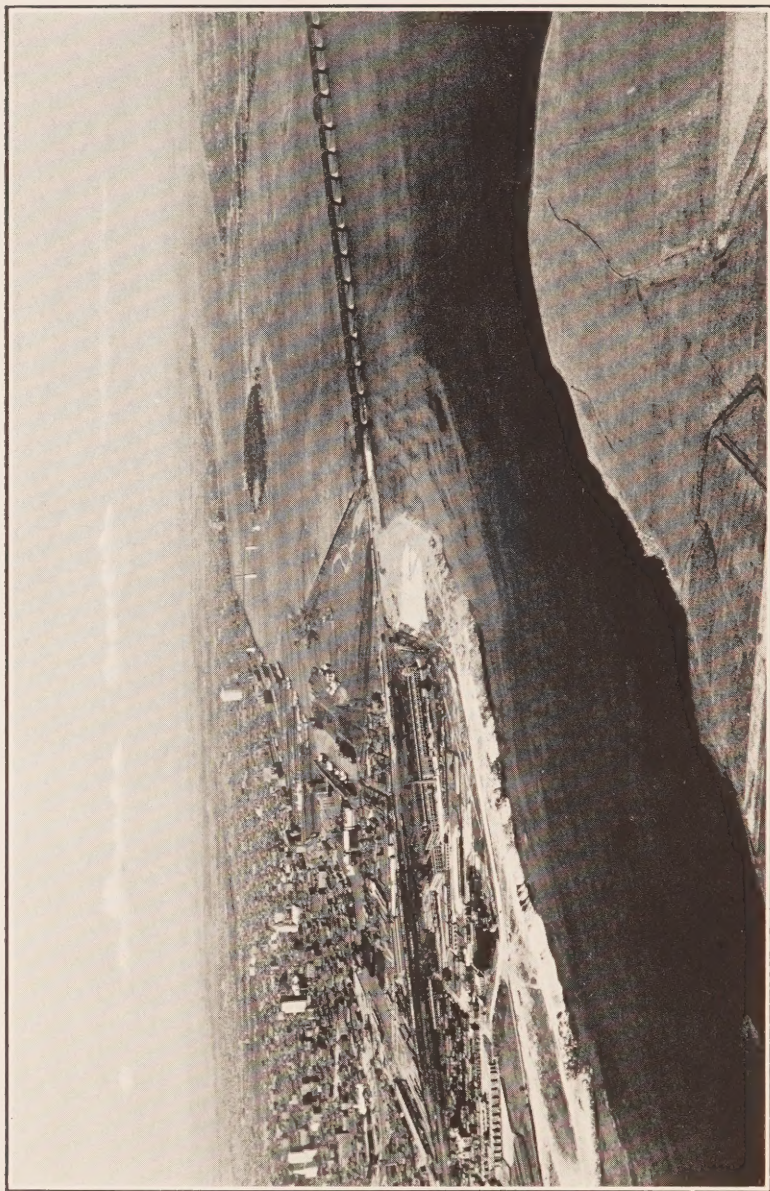
**ANNUAL REPORT**  
**OF THE**  
**Harbour Commissioners**  
**of Montreal**

**For the Year 1933**



**COMMISSIONERS:**

**JOHN C. NEWMAN, President**  
**LT-COL. H.-J. TRIHEY, K.C.**  
**ALPHONSE RAYMOND**



AERIAL VIEW OF THE HARBOUR OF MONTREAL TAKEN FROM A POINT ABOVE VICTORIA BRIDGE.

(Photo: *Canadian Airways.*)



## Harbour Commissioners of Montreal

MONTREAL, 1st April, 1934.

To the Hon. Alfred DURANLEAU, K.C., M.P.,  
Minister of Marine,  
Ottawa, Ont.

Sir: —

In compliance with Section 51 of the Commissioners' Act 57-8 Victoria, Chapter 48, the Harbour Commissioners of Montreal herewith respectfully submit their Annual Report of operations for the year ended 31st December, 1933.

We have the honour to be,

Sir,

Yours very respectfully,

**John C. NEWMAN**, President.

**H. J. TRIHEY**,

**Alphonse RAYMOND**,

Harbour Commissioners.

IN PRESENTING their Annual Report for the year Nineteen Hundred and Thirty-three, the Harbour Commissioners of Montreal take this opportunity of recording their appreciation of the unfailing support and courteous co-operation of the Minister of Marine, the Hon. Alfred Duranleau, and his Deputy Minister, and the other officers of the Department at Ottawa, whose kindly interest has been of very material assistance to them in the solving of the many problems which they were called upon to deal with during the year.

# Harbour Commissioners of Montreal

## ANNUAL REPORT

1933

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### THE YEAR'S ACTIVITIES

The year 1933 at the Port of Montreal was marked by several outstanding characteristics, which fall readily into two distinct classifications, viz. favourable and unfavourable features.

The unfavourable ones were:

- 1) The lowest water levels prevailing for many years;
- 2) Unusually severe weather conditions in November and early December;
- 3) Smallest export grain movement for fourteen years;
- 4) Unsettled and unprofitable ocean freight rates, and a decline in passenger business.

Offsetting these adverse factors in the seasonal operation of the Harbour of Montreal were the following encouraging features:—

- a) An increase of approximately 200 in the number of ocean vessel arrivals;
- b) A new high figure for imports, and a substantial increase in tonnage of domestic merchandise;

- c) The heaviest import movement of coal and oil in the history of the Port;
- d) The establishment of three new ocean lines trading to the Port.

Practically all the foregoing points are referred to in more detail in various parts of this Annual Report. Summing up the situation, it may be stated that despite the unsatisfactory state of St. Lawrence water levels, and the unforeseen difficulties caused by an unusually severe and early winter, the business of the Port and of the Harbour Commissioners for the year 1933 would have been eminently satisfactory, if the export grain movement from Montreal had been maintained on a level even approaching that of the previous year.

## REVENUE

Income on revenue account in 1933 amounted to \$3,874,445.43, which was a decrease of \$533,051.76 from the previous year, and the smallest revenue since 1923. Practically the entire decrease was accounted for by the reduction in income from the grain elevator system, which fell off by almost half a million dollars from the figure for 1932. The exact amount of decrease in grain elevator revenue was \$476,212.22. Decreases were also recorded of \$41,605.69 in sundry receipts, \$26,106.56 in revenue from the railway traffic department, \$13,504.99 in revenue from rental of sheds, hoists, etc., and \$5,476.17 in storage warehouse revenue. There were gains of \$18,140.77 in income from rental of Harbour space, and \$11,402.55 in wharfage revenue.

Controllable expenditures were kept at the lowest figure for many years by the exercise of rigid economy, with the result that operation and maintenance expenditure decreased by \$218,908.43, or 9%, from the previous year. Interest on Government debentures amounted to \$2,498,573.15, an increase of \$32,465.21 over the previous year.




## HARBOUR COMMISSIONERS OF MONTREAL

ITEMS	TOTAL	GRAND TOTAL	ITEMS	TOTAL	GRAND TOTAL
INCOME ON REVENUE ACCOUNT					
Grain Elevator System, operation, maintenance and repair.....	\$ 1,350,186.37		Grain Elevator System, operation, maintenance and repair.....	\$ 719,714.47	
Harbour equipment (Rentals from Sheds, Boats, etc.).....	134,202.54		Railway System, operation, maintenance and repair.....	351,970.98	
Wharf equipment (Rentals from Sheds, Boats, etc.).....	340,825.14		Storage Warehouse operation, maintenance and repair.....	191,684.29	
Wharf equipment (Sheds, Boats, etc.).....	1,283,400.63		Harbour Equipment (Sheds, Boats, etc.) operation maintenance and repair.....	90,077.90	
Rentals from Harbour Spaces, etc.....	183,873.12		Wharves, maintenance and repair (includes maintenance dredging, harbour lighting, etc.).....	371,063.62	
Interest.....	18,852.17		Wharves, maintenance and repair (includes maintenance dredging, harbour lighting, etc.).....	273,019.87	
Total Income on Revenue Account.....	\$ 3,874,445.43		Wharves, maintenance and repair (includes maintenance dredging, harbour lighting, etc.).....	60,839.45	
RECEIPTS ON CAPITAL ACCOUNT					
Dominion Government — advances on loans under Act 17, George V, Chapter 8.....			Wharves, maintenance and repair (includes maintenance dredging, harbour lighting, etc.).....	139,600.44	
Grand Total Receipts.....			Wharves, maintenance and repair (includes maintenance dredging, harbour lighting, etc.).....	11,127.90	
Balances at 31st December, 1933.....	1,804,405.84		Wharves, maintenance and repair (includes maintenance dredging, harbour lighting, etc.).....	\$ 2,105,843.13	
Shipping Fund Receipts Account:.....			Wharves, maintenance and repair (includes maintenance dredging, harbour lighting, etc.).....	2,498,573.15	
1932.....			Wharves, maintenance and repair (includes maintenance dredging, harbour lighting, etc.).....	577,020.00	
Add: Reserve from Revenue account, 1933.....	577,020.00		Wharves, maintenance and repair (includes maintenance dredging, harbour lighting, etc.).....	10,023.36	
Total Shipping Fund Reserve at 31st Dec. 1933.....	3,175,260.00		Wharves, maintenance and repair (includes maintenance dredging, harbour lighting, etc.).....	\$ 5,252,361.64	
Total Balances at 31st December, 1933.....	4,976,665.84				
Total Balances at 31st December, 1932.....	4,312,708.49				
Difference in balances to add.....					
EXPENDITURE ON CAPITAL ACCOUNT					
Real Estate:—			Real Estate:—		
Part lot 494, opposite Section 89			Part lot 494, opposite Section 89		
Wharves and Piers:—			Wharves and Piers:—		
High Level Wharf, Section 89			High Level Wharf, Section 89		
Water main and drains.....	22,085.46		Water main and drains.....	22,085.46	
High Level Wharf, Section 89	573.65		High Level Wharf, Section 89	573.65	
Wharf extension, Section 99	4,190.17		Wharf extension, Section 99	4,190.17	
McCall's Centric Oil Company	144,382.55		McCall's Centric Oil Company	144,382.55	
Wharf, Section 104, Sun Oil Company	7,865.20		Wharf, Section 104, Sun Oil Company	7,865.20	
Wharf, Section 104, Shell Oil Company	18,311.12		Wharf, Section 104, Shell Oil Company	18,311.12	
Wharf extension and junction, Section 104, British-American Oil Company.....	1,734.00		Wharf extension and junction, Section 104, British-American Oil Company.....	1,734.00	
See 107-107, British-American Oil Company.....	2,000.00		See 107-107, British-American Oil Company.....	2,000.00	
Levee, Section 104.....	6,490.56		Levee, Section 104.....	6,490.56	
Coal dock—Sections 50-61			Coal dock—Sections 50-61		
Extension of Approach embankment to Racine Pier, Sections 61-62.....	10,836.00		Extension of Approach embankment to Racine Pier, Sections 61-62.....	10,836.00	
Railway Station, Sections 61-62, 63-64.....	21,630.01		Railway Station, Sections 61-62, 63-64.....	21,630.01	
7, Windmill Point.....			7, Windmill Point.....		
Total, Wharves and Piers.....	239,193.17		Total, Wharves and Piers.....	239,193.17	
Electric Power System:—			Electric Power System:—		
Extension of lighting, Survey and installation of beacon lights to Vulcan Wharf, Sec. 71, Canada Cement Wharf Sections 89-91, McCall's Centric Oil Wharf, Section 99, Sun Oil Wharf sections 101-102, Shell Oil, Sun Oil and British-American Oil Wharves, sections 104 and 105, and to International East Wharf Sections 108-110.			Extension of lighting, Survey and installation of beacon lights to Vulcan Wharf, Sec. 71, Canada Cement Wharf Sections 89-91, McCall's Centric Oil Wharf, Section 99, Sun Oil Wharf sections 101-102, Shell Oil, Sun Oil and British-American Oil Wharves, sections 104 and 105, and to International East Wharf Sections 108-110.		
Shore Equipment:—			Shore Equipment:—		
Two (2) Locomotives Cranes.....	9,001.45		Two (2) Locomotives Cranes.....	9,001.45	
Railway System:—			Railway System:—		
Sillings, Sections 20-35.....	49,971.80		Sillings, Sections 20-35.....	49,971.80	
Total Expenditure on Capital Account.....	1,579.41		Total Expenditure on Capital Account.....	1,579.41	
Grand Total Expenditures.....			Grand Total Expenditures.....		
Balances at 31st December, 1933:			Balances at 31st December, 1933:		
Cash in bank and on hand.....	\$157,818.61		Cash in bank and on hand.....	\$157,818.61	
Bills Receivable.....	32,203.98		Bills Receivable.....	32,203.98	
Accounts Receivable.....	392,036.87		Accounts Receivable.....	392,036.87	
Accrued Grain Storage.....	97,554.55		Accrued Grain Storage.....	97,554.55	
Stocks Accounts.....	188,400.38		Stocks Accounts.....	188,400.38	
Difference charges and suspense.....	140,282.08		Difference charges and suspense.....	140,282.08	
Total balances at 31st December, 1933.....	1,088,306.77		Total balances at 31st December, 1933.....	1,088,306.77	
Total balances at 31st December, 1932.....	1,635,227.46		Total balances at 31st December, 1932.....	1,635,227.46	
Difference in balances, to deduct.....			Difference in balances, to deduct.....		
	\$ 4,965,342.78				

Certified:—  
ALEX. FERGUSON,  
*Acting Comptroller*

Verified:—  
CLARKSON, McDONALD, CURRIE & CO., C.A.,  
Auditors.

Certified:—  
L. H. A. ARCHAMBAULT,  
*Secretary.*



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Expenditure on capital account in 1933 amounted to \$299,811.83.

Revenues of the Harbour Commissioners of Montreal for the past ten years have been as follows:

1924.....	\$ 4,382,115.25
1925.....	4,749,100.69
1926.....	4,632,599.92
1927.....	5,453,951.56
1928.....	5,589,327.12
1929.....	5,178,567.71
1930.....	4,310,935.13
1931.....	4,500,457.59
1932.....	4,407,497.19
1933.....	3,874,445.43

### **Ships and Shipping Tonnage**

All classes of vessels trading to the Port in 1933 made substantial increases over the previous year's totals. Trans-Atlantic shipping reached the third largest total in the Port's history, with 1,061 ships, having net registered tonnage of 3,822,586 tons. The number of coasting vessels, 415, was the greatest ever recorded, although their net registered tonnage, 724,092 tons, had previously been exceeded. Inland ships increased to 4,413 as compared with 4,094 in 1932.

Even allowing for the fact that several passenger liners made Quebec their Western terminus on their last voyage of the season, instead of Montreal, due to the early setting-in of severe weather, the number of passenger ships which entered the Port in 1933 was greater than in 1932.

Important additions to the freight liner tonnage trading to the Port resulted from the inauguration during the season of three new shipping lines on the Montreal route, the Bristol City Line, the Ellerman-Wilson Line and the Great Lakes-Intercoastal Line.



The number and net registered tonnage of ocean-going vessels (trans-Atlantic and coasting combined) which came to the Port of Montreal during the past five years were as follows:—

	Number	Net Regd. Tonnage
1929.....	1,283	4,637,800
1930.....	1,197	4,434,589
1931.....	1,150	4,069,421
1932.....	1,274	4,250,426
1933.....	1,476	4,546,678

### **Tonnage of Merchandise Handled**

The fact that the business of the Port of Montreal, in the past few years, has substantially changed in character was never more clearly demonstrated than during 1933. In the years from 1921 to 1928, Montreal was essentially a grain shipping port, and when tonnage of grain exports was subtracted from the total tonnage, the volume of all other commodities moving through the port was shown to be much less impressive than would have been expected.

In the past few years, however, while grain exports have dwindled to a fraction of their previous volume, the totals of commodity tonnage have not only not decreased, but on the contrary have actually increased. For example, in 1924, in which year total tonnage was 8,985,589 tons, grain exports amounted to 4,662,456 tons, while all other commodities combined, including the remaining exports, and all imports and domestic commodities, reached a total of 4,323,133 tons. Ten years later, in 1933, when total tonnage amounted to 10,565,408 tons, grain exports were only 1,661,628 tons, or approximately one-third of the previous figure, while commodities other than grain amounted to 8,903,780 tons, or more than twice the previous total.

Exports of commodities other than grain in 1933 were actually greater than in the previous year by 218,695 tons,

although the export total of 2,802,873 tons was the smallest for twelve years, because of the decrease of 1,342,137 tons in grain shipments as compared with 1932. Domestic commodity tonnage increased by the substantial figure of 440,113 tons.

Import tonnage continued the excellent progress made in several successive years by recording a new high total for the port, with 4,539,444 tons, an increase of more than half a million tons over 1932. The increase in inward movement of merchandise to the port was due to the continued development of bulk cargoes, notably oil and coal, wood-pulp, manganese ore, tin plate and iron ore. An interesting feature of imports in 1933 was the arrival of several cargoes of rye and corn in the last month of the season, destined from Europe to the United States.

The following statement shows the yearly division and total tonnage of merchandise handled in the Harbour of Montreal during the past ten years:—

	Import tons	Export tons	Domestic tons	Total tons
1924.....	1,472,933	5,594,310	1,918,346	8,985,589
1925.....	2,394,311	5,265,151	1,477,819	9,137,281
1926.....	2,028,162	4,549,835	2,632,702	9,210,699
1927.....	2,693,535	6,175,485	3,052,153	11,921,173
1928.....	2,543,685	6,838,108	3,207,333	12,589,126
1929.....	3,256,991	3,418,896	3,260,985	9,936,872
1930.....	3,376,182	3,101,561	3,210,026	9,687,769
1931.....	3,568,542	3,036,835	3,308,997	9,914,374
1932.....	4,036,045	3,926,315	2,782,978	10,745,338
1933.....	4,539,444	2,802,873	3,223,091	10,565,408

### Coal and Oil Receipts

Approximately 600 import commodities and 400 export commodities are handled through the Port of Montreal each season of navigation. Out of this total of roughly 1,600

different varieties of merchandise, two commodities alone, coal and oil, represent almost half of the entire cargo tonnage for the year. New high records for all time were reached in 1933 by coal and oil received over the wharves of the Port, and this increased business operated satisfactorily in making up for loss sustained in grain export. It also accounted in large part for the increase in shipping tonnage.

Total coal receipts were 3,020,062 tons, an increase of 378,014 tons over 1932. Canadian bituminous, by vessel from Nova Scotia, increased by 231,599 tons over the previous year. British anthracite reached the highest total in history, with 1,306,646 tons, an increase of 222,243 tons. No German or Russian anthracite was received in 1933.

Imports of oil and gasoline also reached the highest total in the history of the port, with 1,822,342 tons, an increase of 250,473 tons over 1932. The combined tonnage of coal and oil brought in through the Harbour in 1933 was 4,842,404 tons, which is equivalent to 46% of the Port's merchandise tonnage.

Classifications of coal and coke receipts by water during 1933 were as follows:—

	tons
Canadian bituminous.....	1,404,747
British anthracite.....	1,306,646
British bituminous.....	188,859
United States bituminous.....	39,092
United States anthracite.....	15,003
British coke.....	12,058

Imports of oil and gasoline in 1933 were as follows:—

Crude oil.....	1,689,086
Gasoline.....	105,308
Refined oil.....	27,948



## Grain Exports

Details of the grain movement through the Harbour of Montreal are given in the section of this Annual Report devoted to the grain elevator system. From the statistics it will be seen that the quantity of grain delivered from the four grain elevators comprising the Commissioners' grain handling system, 65,435,618 bushels, was a decrease of 47,457,982 bushels or 42% from the previous year's total. Not since 1920, when the Port's equipment for handling grain was approximately half as extensive as the present installation, has the export grain movement through Montreal been on such a meagre scale as in the navigation season of 1933. The shrinkage in volume of grain moving out for export was widespread, and affected all United States ports. Ports like New Orleans and Galveston, which in former years were accustomed to handle as much as seventy or eighty million bushels of grain, shipped practically no grain during 1933. Exports from New York dropped to the lowest figure in many years, 20,764,394 bushels, of which 19,991,985 bushels was Canadian grain.

The following statement gives the comparative figures for Montreal and leading United States ports:—

	bushels
Montreal.....	65,435,618
New York.....	20,764,394
Albany.....	3,162,489
New Orleans.....	1,746,762
Boston.....	1,261,885
Portland, Me.....	1,085,770
Philadelphia.....	672,880
Baltimore.....	254,832
Newport News.....	128,929
Norfolk.....	94,134
Mobile.....	79,079
Galveston.....	50,338

## **Railway Traffic**

Traffic on the Commissioners' railway system during the year under review was disappointingly slow. With the exception of August and September, which recorded slight increases, all other months gave lower returns than in 1932. Rail-borne grain only amounted to 1,826 cars, the smallest number on record. Over 1,600 cars of cattle were handled, an increase of 1,000 cars over the previous year. Over 1,200 cars of export freight were diverted from the Port in the last two weeks of the navigation season, due to the abnormally premature arrival of winter, while from the same cause, the handling of a large number of cars of import freight was lost to the Commissioners' railway department.

## **New Works**

The only new work undertaken during 1933 was the construction of three small cribs for an extension to one of the industrial wharves for importation of oil, in the Eastern section of the Port.

## SHIPPING

The season of navigation in 1933 opened on March 23rd, and closed on December 14th.

Despite the unusually early opening, marked as is customary by the arrival of the icebreaker "Saurel" at Victoria Pier, the first ocean vessel did not reach Port until April 14th.

Furthermore, the mere recording of the fact that navigation officially closed on December 14th, which was approximately the same date as during the past five years, does not disclose the fact that November weather was of unusual severity, causing serious difficulties to navigators of vessels arriving at and sailing from Montreal during the last few weeks of the navigation season. Ice formed on the St. Lawrence between Quebec and Montreal, and the Soulanges and Lachine Canals were quickly frozen over. Due to the difficulty of navigating through Lake St. Peter, several liners were diverted from Montreal, and made their Western terminus Quebec, with resulting loss of revenue to the Port of Montreal. But despite the severe conditions, and notwithstanding the diversion of a few ships, during this trying period over 100 ships reached the Port, completed their discharging and loading, and successfully got away to sea without serious losses having ensued.

In this connection the Commissioners wish to pay a tribute to the excellent work accomplished by the ice-breakers and other vessels of the Marine Department, in breaking channels through the ice, convoying fleets of ships, assisting vessels in distress and generally ensuring safety of ships, crews and cargoes.

Mention must be made, also, of the canal officers and staffs, who were faced with the difficult problem of locking between 50 and 100 canal vessels through heavy ice on stretches of the Soulanges and Lachine canals. The Commissioners were able to assist in this excellent work by sending



one of their tugs to work in the Lachine Canal. Despite the apparently insurmountable nature of the obstacles, all vessels were successfully cleared.

It is a striking commentary on the efficient pitch to which ice-breaking and assistance to navigation on the St. Lawrence have been brought in recent years, that in a season made notable by the conditions we have described, a new late date for ocean vessel arrivals was set in 1933 by the berthing in Port of the S. S. "Fjeld" on December 10th.

There was a continued gratifying increase in the number of ships which traded to the Port in 1933. The total was 1,476, with net registered tonnage of 4,546,678 tons, an increase of 202 ships and 296,252 tons over the previous year's totals. The figures for the past four years were as follows:

	No. of Ships	Net Reg. Tonnage
1930.....	1,197	4,431,589
1931.....	1,150	4,069,421
1932.....	1,274	4,250,426
1933.....	1,476	4,546,678

Trans-Atlantic vessels increased to 1,061 ships, a figure which was only exceeded in 1927 and 1928, while coasting vessels numbered 415, the largest in the Port's history. Inland vessels also recorded a substantial increase, from 4,094 in 1932 to 4,413 in 1933.

The first trans-Atlantic ship to reach Port in 1933 was the S. S. "Boston City", whose master, Captain L. H. Milidge, was subsequently presented with the traditional gold-headed cane by the Harbour Commissioners. Quite a little interest was aroused by the first arrival in 1933, as the S.S. "Boston City", of the Bristol City Line, won the distinction by the narrowest of margins, having berthed at 7.55 p.m. on April 14th, while the S.S. "Torr Head" of the Head Line, berthed at 8 p.m. on the same day, a mere five minutes later.

A further point of interest was the fact that the Bristol City Line was making its first appearance on the Montreal route, and their first vessel of this new service was the one which captured the coveted trophy.

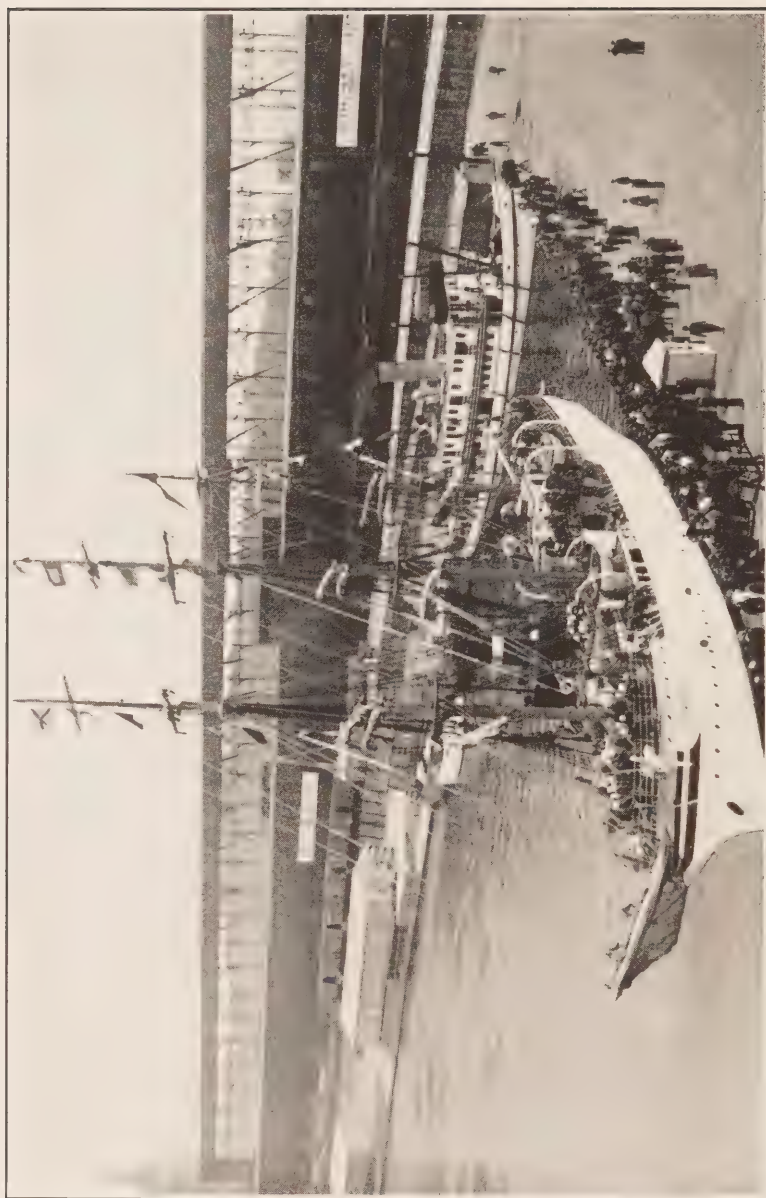
Three new lines were brought to Montreal during 1933, the Bristol City Line, of which Furness Withy & Co. are agents, having had eleven sailings between Bristol and Montreal, representing net registered tonnage of 18,484 tons; the Ellerman-Wilson Line, of which McLean Kennedy Ltd. are agents, with ten sailings between Hull and Montreal, representing 33,198 tons net register; and the Great Lakes—Intercoastal Line, with five sailings between Great Lakes ports, Montreal and Vancouver, representing 7,282 tons net register.

October was the busiest shipping month of the entire navigation season, with 166 trans-Atlantic arrivals, 71 coasting vessels, and 682 inland vessels, a total of 919 ships, with net registered tonnage of 1,253,234 tons.

The outstanding feature of the Port business in the past few years has been the large increase in import bulk cargoes of various commodities. The statement of inward cargoes which follows shows the increase in the numbers of vessels laden with full cargoes of coal, crude oil and gasoline, wood-pulp, lumber, china clay, etc. In October and November several vessels brought in full cargoes of corn, rye and flax, for shipment to United States points.

Other interesting features of the year's shipping activities were as follows:—

The Canadian Pacific S. S. "Beaverdale" arrived at Section 12 on April 21st with the famous Lodon, Midland & Scottish train, the "Royal Scot", on board. This interesting shipment, which consisted of engine and tender, and eight cars, was unloaded by the use of the Commissioners' 75-ton floating crane, without a hitch. Subsequently, after the train had travelled across Canada and visited the Chicago



THE NORWEGIAN TRAINING SHIP, "SORLANDET", BERTHED AT VICTORIA BASIN.



World's Fair, the corresponding handling from shore to ship was done with the same equipment.

Other unusual vessels which passed through the Port during the year en route to the Chicago Fair were the famous sailing vessel, "Bluenose", from Nova Scotia; the Norwegian training ship "Sorlandet"; the United States sailing vessel "Gertrude L. Thebaud"; three United States Coast-guard vessels, "Petrel," "Patriot", and "Eagle"; and an old British convict ship, the "Success", which was accompanied by U. S. Submarine "S-49".

Four British warships, H. M. S. "Norfolk", "Danae", "Scarborough", and "Dundee" visited the Harbour during the season. Two Canadian warships, H.M.C.S. "Champlain" and "Saguenay" were also visitors to the Port in 1933, as well as two French warships, the "Entrecasteaux" and "Ville d'Ys".

The Italian air armada of 24 huge seaplanes, which had successfully crossed the Atlantic, swooped down from the skies and landed with military precision at the Fairchild Airport in the Harbour on July 14th. Huge crowds were on hand to witness this stirring spectacle, and the Commissioners' staff and police assisted in preliminary preparation and in patrolling the water area and the shore.

Unusual cargoes or incidents were as follows: Seven cargoes of tinplate were unloaded at Shed 25; the S.S. "Zurichmoor" loaded 234,000 bushels of No 2 Northern wheat for Rio de Janeiro; the S.S. "Bianca" loaded a full cargo of crude coal tar for Rouen; the S. S. "Dalmore" arrived from Bombay on November 2nd with a cargo of flaxseed; two ships brought in Rye from Braila, Roumania, two ships brought rye from Rotterdam, and one from Danzig.

The following vessels due to sail from Montreal in November turned around at Quebec due to severe weather conditions: S S. "Duchess of Richmond", "Montclare", "Aurania", "Athenia", "Vardulia", "Belle Isle", "Nyholt",

"Frontenac", "Strand", "Lutzen", "Zenda", "Melmore Head", "Vancolite", "Reginolite" and "Athelbeach".

Forty-three tramp ships left Montreal light during the season to load cargoes at Quebec, and thirty-eight vessels left this Port to load cargoes at Sorel. In addition, eleven tramp ships left Montreal partly loaded to finish loading at Sorel or Quebec. Three tramps sailed from Montreal in ballast to load cargoes of grain at Churchill.

During the season of navigation, one hundred and thirty-six small foreign vessels passed through the Harbour with cargoes of woodpulp, clay, coal, sugar, sulphite pulp, nut oil, vegetable oil, fluorspar, super-phosphate, etc. for ports on the Great Lakes.

The total number of passengers reported by the trans-Atlantic and coastal companies as having sailed from and arrived at Montreal in 1933 is 70,237, which was a considerable decrease from the previous year. River passengers carried on the vessels of the Canada Steamship Lines numbered 48,278 arriving at and departing from Montreal, and this also was a substantial drop from the figure for 1932.

The Lachine Canal was opened to traffic on April 19th, and closed on December 5th. Grain rates from the Head of the Lakes to Montreal were somewhat firmer during 1933 than in the previous year, although still considerably below what used to be regarded as a minimum rate.

Canadian ships arriving at the Port in 1933 show the largest gain in number of vessels according to nationality. British shipping was represented by the largest number of ships and the greatest aggregate tonnage. Canadian ships were in second place, Norway third, with the United States, Italy, Denmark, Sweden, Germany and Holland following in the order given.

The following statement shows the classification of ocean-going vessels which arrived at Montreal during the navigation season of 1933:

	Number of Ships	Net Registered Tonnage
British passenger liners.....	101	992,767
British freight liners.....	178	664,259
British coasting—coal.....	149	494,585
British tramps—coal.....	153	415,932
Foreign tankers.....	72	288,941
Foreign tramps—various cargoes.....	189	269,080
Foreign freight liners.....	88	243,046
Canadian tankers—ocean.....	37	212,809
British tankers—ocean.....	46	198,548
Foreign tramps—coal.....	58	123,334
Canadian passenger liners.....	28	123,240
Canadian freight liners.....	42	119,708
Canadian coasting—passenger.....	58	97,740
British tramps—various cargoes.....	30	81,562
Canadian coasting—various cargoes...	162	81,419
Foreign tramps—in ballast.....	18	41,878
British tramps—in ballast.....	9	23,419
Canadian tankers—coasting.....	18	23,270
British warships.....	4	16,341
British coasting—gypsum.....	7	9,139
Foreign coasting—various cargoes.....	12	8,746
British coasting—various cargoes.....	6	7,840
Canadian warships.....	2	3,200
French warships.....	2	2,220
Canadian tramp—coal.....	1	1,672
British tankers—coasting.....	3	1,353
United States coastguard.....	3	630
	<hr/> 1,476	<hr/> 4,546,678

The following table gives types of cargoes carried by vessels to and from the Harbour during the navigation season of 1933:

## Inward Cargoes

Cargo	Number of Ships	Net Registered Tonnage
General.....	567	2,153,193
Coal.....	408	1,118,240
Crude Oil and Gasoline.....	151	679,161
In ballast.....	99	216,507
Woodpulp.....	71	82,025
Sugar.....	31	64,229
Wood.....	27	1,964
China clay.....	12	18,199
Grain.....	11	32,738
Sulphur.....	11	28,334
Pulpwood.....	9	8,483
Tinplate.....	7	24,150
Maize.....	7	19,669
Manganese ore.....	7	18,163
Gypsum.....	7	9,139
Iron ore.....	5	12,043
Vegetable oil.....	4	4,069
Sulphite pulp.....	4	2,837
Peanut oil.....	4	2,757
Scrap iron.....	4	2,608
Fuel oil.....	3	12,716
Molasses.....	3	11,367
Seal oil.....	3	360
Nitrate of soda.....	2	2,377
Steel.....	2	2,169
Super-phosphates.....	2	1,546
Fluorspar.....	2	1,298
Salt.....	2	750
Gas oil.....	1	3,423
Phosphate rock.....	1	3,068
Binder Twine.....	1	2,754
Newsprint.....	1	1,286
Cotton.....	1	1,119
Oyster shells.....	1	1,002



Cargo	Number of Ships	Net Registered Tonnage
Chalk.....	1	908
Skelp steel.....	1	772
Palm oil.....	1	560
Lumber.....	1	375
Potatoes.....	1	320

### Outward Cargoes

In ballast.....	552	1,679,927
Grain and general.....	348	1,834,792
General.....	349	549,824
Grain.....	105	289,383
Pitch.....	43	32,637
Gasoline.....	11	33,862
Fuel oil.....	8	22,748
Flour.....	8	6,090
Tinplate.....	7	24,156
Cement.....	6	8,346
Scrap iron.....	3	12,707
Logs.....	2	6,814
Scrap steel.....	2	3,573
Sulphate of Ammonia.....	2	1,450
Oil.....	1	4,710
Crude coal tar.....	1	3,440
Sulphur.....	1	2,357
Coke.....	1	1,882
Newsprint.....	1	1,672
Refined oil.....	1	1,394
Milorganite.....	1	1,268
Feed.....	1	1,219
Automobiles.....	1	1,129
Pork.....	1	724
Animal tallow.....	1	560
Explosives.....	1	230
Seal oil.....	1	80

## PORT OF MONTREAL

Statement showing the Nationalities and Tonnage of Sea-Going Vessels that arrived at the Port of Montreal during the Season of 1933, which were navigated by 75,040 Seamen.

Nationality	Number of Vessels	Net Tonnage
British.....	703	2,952,963
Canadian.....	331	615,840
Norwegian.....	254	509,803
American.....	48	106,049
Italian.....	35	114,232
Danish.....	26	47,117
Swedish.....	23	51,559
German.....	21	44,816
Dutch.....	18	62,405
Greek.....	7	20,413
Japanese.....	3	12,707
French.....	3	4,102
Danzig.....	2	2,336
Panamanian.....	2	2,336
	1,476	4,546,678

N. B. — Of the above vessels 44 were built of wood with a net tonnage of 3,360.

# PORT OF MONTREAL

Statement showing the classification of Trans-Atlantic vessels that arrived at the Port of Montreal during the Past ten Years

Year	Steamships		Schooners		Total	
	Number	Net registered Tonnage	Number	Net registered Tonnage	Number	Net registered Tonnage
1924.....	987	3,597,031	1	116	988	3,597,147
1925.....	1,040	4,744,793	.....	.....	1,040	4,744,793
1926.....	1,042	3,551,489	.....	.....	1,042	3,551,489
1927.....	1,231	4,252,325	.....	.....	1,231	4,252,325
1928.....	1,222	4,693,925	.....	.....	1,222	4,693,925
1929.....	916	3,910,679	.....	.....	916	3,910,679
1930.....	826	3,740,884	.....	.....	826	3,740,884
1931.....	811	3,425,107	.....	.....	811	3,425,107
1932.....	963	3,676,172	.....	.....	963	3,676,172
1933.....	1,060	3,822,493	1	93	1,061	3,822,586

## PORT OF MONTREAL

Statement showing the classification of vessels that arrived in the Port of Montreal during the Past ten Years from Lower St. Lawrence Ports, the Maritime Provinces and Newfoundland.

Year	Steamships		Schooners		Total	
	Number	Net registered Tonnage	Number	Net registered Tonnage	Number	Net registered Tonnage
1924 .....	231	498,903	4	282	235	499,185
1925 .....	215	359,320	.....	.....	215	359,320
1926 .....	379	670,241	.....	.....	379	670,241
1927 .....	379	740,161	.....	.....	379	740,161
1928 .....	385	800,137	.....	.....	385	800,137
1929 .....	367	727,121	.....	.....	367	727,121
1930 .....	371	693,705	.....	.....	371	693,705
1931 .....	339	644,314	.....	.....	339	644,314
1932 .....	311	573,954	.....	.....	311	573,954
1933 .....	414	723,993	1	99	415	724,092



# PORT OF MONTREAL

Combined Statement showing the number and net tonnage of vessels that arrived at the Port of Montreal during the Past ten Years

YEAR	TRANS-ATLANTIC		MARITIME PROVINCES AND NEWFOUNDLAND		TOTAL	
	Vessels	Net registered Tonnage	Vessels	Net registered Tonnage	Vessels	Net registered Tonnage
1924.....	988	3,597,147	235	499,185	1,223	4,096,332
1925.....	1,040	4,744,793	215	359,520	1,255	5,104,313
1926.....	1,042	3,551,489	379	670,241	1,421	4,221,730
1927.....	1,231	4,252,325	379	740,161	1,610	4,992,486
1928.....	1,222	4,693,925	385	800,137	1,607	5,494,062
1929.....	916	3,910,679	367	727,121	1,283	4,637,800
1930.....	826	3,740,884	371	693,705	1,197	4,434,589
1931.....	811	3,425,107	339	614,314	1,150	4,069,421
1932.....	963	3,676,172	311	574,254	1,274	4,250,423
1933.....	1,061	3,822,586	415	724,092	1,476	4,546,678

During 1933, 4,413 Inland and River vessels arrived at the Port, having a net registered tonnage of 3,868,274.

## PORT OF MONTREAL

Statement showing the dates of the Opening of Navigation and the Closing thereof, the First Arrival and the Last Departure for Sea; also the greatest Number of Vessels in the Port at one time, during the past ten years.

Year	Opening of Navigation	Closing of Navigation	First Arrival from Sea	Last Departure for Sea	Greatest number of Vessels in Port at one time.			
					Sea-Going		Inland	
					No.	Date	No.	Date
1924.....	April 18th	Dec. 12th	April 24th	Dec. 3rd	80	Nov. 4th	43	June 17th
1925.....	April 10th	Dec. 10th	April 16th	Dec. 8th	62	Aug. 19th	46	Oct. 6th
1926.....	May 2nd	Dec. 6th	May 3rd	Dec. 6th	60	May 19th	66	Sept. 7th
1927.....	April 10th	Jan. 4-28	April 12th	Dec. 6th	80	Oct. 20th	44	May 1st
1928.....	April 26th	Jan. 6-29	April 26th	Dec. 9th	61	Nov. 19th	43	Aug. 13th
1929.....	April 10th	Dec. 10th	April 20th	Dec. 7th	53	July 3rd	47	Oct. 7th
1930.....	April 12th	Dec. 12th	April 21st	Dec. 12th	50	May 14th	41	Sept. 12th
1931.....	Mar. 19th	Dec. 13th	April 15th	Dec. 11th	53	May 27th	29	Oct. 31st
1932.....	April 14th	Dec. 13th	April 18th	Dec. 7th	53	Nov. 23rd	49	May 2nd
1933.....	Mar. 23rd	Dec. 14th	April 14th	Dec. 6th	40	Nov. 1st	34	Sept. 15th

## GRAIN ELEVATOR SYSTEM

During the year 1933, grain deliveries over the Commissioners' grain elevator system amounted to 65,435,618 bushels. This was a decrease of 47,457,982 bushels, or 42% from the figure for the previous year.

It was, furthermore, the smallest quantity of grain shipped from the Port of Montreal since 1920, in which year the elevator capacity of the Port was approximately half of its present capacity, there were 11 fewer grain-loading berths, and the capital investment of the Commissioners was very considerably smaller than the present investment.

The result of the year's grain operations reflects in no uncertain measure the extraordinary change which has come about in the world grain situation since the years from 1921 to 1928. Countries which were formerly large importers of wheat and other grains, have so systematically developed their own production that their imports have either shrunk to a negligible quantity, or, in some instances, they have actually joined the group of wheat exporting nations. This situation is dramatically illustrated by the following comparison of grain shipments from the Port of Montreal to various European countries in 1928 and in 1933:—

	1928	1933
	bushels	bushels
Great Britain.....	42,277,247	19,777,169
Holland.....	33,869,224	7,060,156
Germany.....	30,457,927	5,690,116
Italy.....	29,419,832	2,106,717
Belgium.....	23,282,921	7,378,507
Greece.....	7,913,456	191,305
Spain.....	6,631,913	nil
Norway.....	4,964,984	1,747,019



AERIAL VIEW OF THE WESTERN SECTION OF THE PORT OF MONTREAL, SHOWING THE LACHINE  
CANAL

Photo: (Canadian Airways.)



The statement of grain deliveries during the months of the navigation season, when placed alongside the equivalent statement for 1932, reveals at a glance that the sluggishness in grain export lasted throughout the entire season, and was not confined to any particular month or months, viz.:

	<b>1932</b>	<b>1933</b>
	bushels	bushels
April.....	5,675,655	3,801,499
May.....	16,993,625	8,137,130
June.....	15,768,069	7,566,007
July.....	12,208,524	5,385,005
August.....	11,740,943	8,839,072
September.....	14,356,889	7,653,268
October.....	14,169,708	9,842,671
November.....	17,558,410	11,959,409

Grain deliveries from each of the Commissioners' four elevators in 1932 and 1933 were as follows:

	<b>1932</b>	<b>1933</b>
	bushels	bushels
Grain Elevator No. 1.....	31,954,295	19,689,764
Grain Elevator No. 2.....	30,226,405	18,078,391
Grain Elevator No. 3.....	26,243,009	14,381,626
Grain Elevator No. "B".....	24,469,891	13,285,837

While the quantity of wheat exported in 1933 showed a greater decrease from the previous year than any other grain, wheat represented a much larger proportion of the total grain deliveries in 1933, with 55,425,351 bushels out of a total of 65,435,618 bushels of all grains. The various grains comprising total deliveries for the past two years were as follows:

	<b>1932</b>	<b>1933</b>
	bushels	bushels
Wheat.....	79,678,804	55,425,351
Barley.....	10,201,501	1,101,868
Oats.....	9,359,299	2,162,201

	1932	1933
	bushels	bushels
Rye.....	8,293,349	2,119,955
Corn.....	4,014,950	2,680,469
Flax.....	600,163	1,676,920
Buckwheat.....	154,691	268,854

In connection with the percentage of grain receipts carried by water and by rail, the rail carriers were more seriously affected in 1933 by the decreased quantities of grain moving to seaboard than were the water carriers. Water-borne grain amounted to 62,847,137 bushels, or approximately 65% of the previous year's figure, while rail-borne grain only amounted to 2,109,085 bushels, or less than 20% of the quantity for 1932. For the first time in the history of the grain elevators, 72,938 bushels of grain was unloaded from 490 trucks during 1933. The following statement shows the division of grain receipts according to method of transportation prior to unloading, for the past five years:

Year	Water-borne Grain bus	Rail-borne Grain bus	Truck Grain bus	Percentage of total by water
1929	69,800,508	20,628,281	.....	78%
1930	75,362,566	4,199,854	.....	95%
1931	80,660,388	8,775,326	.....	90%
1932	97,583,700	11,580,644	.....	89%
1933	62,847,137	2,109,085	72,938	97%

Sixteen different countries, headed by Great Britain, are represented in the list of destinations of grain shipments from Montreal in 1933, of which complete details may be found amongst the grain statistics which follow.

## SUMMARY OF GRAIN HANDLING, ELEVATORS 1-2-3-B, 1933

	C. N. Cars	C. P. Cars	Total Cars	Ves- sels	Receipts bushels	Deliveries bushels
January...	2	.....	2	....	2,505	462,890
February..	3	3	6	....	8,935	673,653
March.....	.....	3	3	....	4,652	408,652
April.....	303	207	510	59	6,041,164	3,801,499
May.....	351	80	431	96	8,825,488	8,137,130
June.....	14	.....	14	110	9,346,700	7,566,007
July.....	1	.....	1	53	4,624,656	5,385,003
August....	.....	1	1	98	8,100,056	8,839,072
September.	6	1	7	140	11,830,668	7,653,268
October...	60	28	88	102	9,389,564	9,842,671
November..	39	32	71	59	6,422,358	11,959,409
December..	5	67	72	5	432,414	706,364
	784	422	1,206	722	65,029,160	65,435,618

# SUMMARY OF GRAIN HANDLING

## Elevators 1-2-3-B 1933

	Receipts bushels	Deliveries bushels
January.....	2,505	462,890
February.....	8,935	673,653
March.....	4,652	408,652
April.....	6,041,164	3,801,499
May.....	8,825,488	8,137,130
June.....	9,346,700	7,566,007
July.....	4,624,656	5,385,003
August.....	8,100,056	8,839,072
September.....	11,830,668	7,653,268
October.....	9,389,564	9,842,671
November.....	6,422,358	11,959,409
December.....	432,414	706,364
	<hr/> 65,029,160	<hr/> 65,435,618

	Receipts bushels		Deliveries bushels
Water.....	62,847,137	Steamers Expt..	58,527,327
		Steamers Other..	1,542,792
Rail.....	2,109,085	Cars Export....	146,436
		Cars.....	3,682,613
Trucks.....	72,938	Waggon Expt..	55,175
		Waggon.....	1,481,275
	<hr/> 65,029,160		<hr/> 65,435,618

First Vessel Unloaded — April 15th, 1933.

Last Vessel Unloaded — December 5th, 1933.

		bushels
722 Vessels.....		62,847,137
784 C. N. Cars }		
422 C. P. Cars }	1,206.....	2,109,085
490 Trucks.....		72,938
		<hr/> 65,029,160
Stock in Elevators (at December 31st, 1933)...		6,882,502



# SUMMARY OF GRAIN RECEIPTS, ELEVATORS 1-2-3-B, 1933

	Wheat	Oats	Barley	Corn	Rye	Flax	Buckwheat	Total
January	4,995						2,505	2,505
February	3,332						3,910	8,935
March							1,320	4,652
April	6,039,630	116					1,418	6,041,161
May	8,158,611	551,518	75,390			39,969		8,825,488
June	8,613,506	197,934	441,770	19,903		56,612	16,855	9,346,700
July	4,173,551	66,552	22,134	182,177		176,015	1,207	4,624,656
August	7,732,242	167,867	36,920			162,934	93	8,100,056
September	11,017,183	94,801	38,600	406,215		243,869		11,830,668
October	7,101,382	412,657	181,348	407,743	664,212	463,559	155,663	9,389,564
November	3,078,100	704,890	219,905	993,680	921,984	424,457	79,342	6,422,358
December	430,844	1,570						432,414
	56,386,376	2,197,905	1,016,087	2,009,808	1,580,196	1,567,445	265,343	65,029,160

33

# SUMMARY OF GRAIN DELIVERIES, ELEVATORS 1-2-3-B, 1933

	Wheat	Oats	Barley	Corn	Rye	Flax	Buckwheat	Total
January	220,882	70,991	24,708	100,471	31,028	12,328	2,482	462,890
February	419,402	72,655	19,287	85,138	32,000	40,000	5,171	673,653
March	95,959	80,323	41,695	113,355	37,000	10,000	320	108,652
April	3,099,508	119,094	29,083	513,011	23,626	17,147		3,801,499
May	7,306,949	308,018	78,108	297,473	106,613	39,969		8,137,130
June	6,859,772	167,989	280,465	149,962	13,681	56,612	7,496	7,566,007
July	4,662,351	233,647	69,369	338,073	18,668	48,022	11,873	5,385,003
August	8,025,731	117,960	86,548	175,241	140,159	290,927	2,506	8,839,072
September	7,016,217	165,803	64,099	159,115	23,143	223,891	1,000	7,653,268
October	8,019,261	300,517	137,161	327,647	710,242	201,247	116,596	9,842,661
November	9,279,740	402,904	238,620	324,875	935,617	659,213	118,410	11,959,109
December	389,579	122,300	32,725	96,078	18,148	47,534		706,364
	55,425,351	2,162,201	1,101,868	2,680,469	2,119,955	1,676,920	268,851	65,435,618

## STATEMENT SHOWING DESTINATION OF EXPORT GRAIN 1933

(Bulk grain deliveries direct to vessel)

(Bushels)

COUNTRY	WHEAT	OATS	BARLEY	RYE	CORN	BUCK WHEAT	FLAX	TOTALS
Algeria.....	166,338	.....	.....	.....	.....	.....	.....	166,338
Belgium.....	7,338,507	.....	.....	.....	.....	40,000	.....	7,378,507
Brazil.....	451,830	.....	.....	.....	.....	.....	.....	451,830
Denmark.....	829,804	.....	.....	.....	25,714	.....	.....	855,518
Finland.....	334,767	.....	.....	.....	.....	.....	.....	334,767
France.....	3,141,132	.....	.....	.....	.....	.....	.....	3,141,132
Germany.....	5,690,116	.....	.....	.....	.....	.....	.....	5,690,116
Great Britain.....	18,281,254	847,277	488,724	119,945	.....	.....	39,969	19,777,169
Greece.....	191,305	.....	.....	.....	.....	.....	.....	191,305
Holland.....	6,826,804	18,824	20,281	.....	.....	194,247	.....	7,060,156
Irish Free State.....	1,502,229	.....	140,000	.....	.....	.....	.....	1,642,229
Ireland, Northern.....	276,000	18,824	18,583	.....	.....	.....	.....	313,407
Italy.....	2,106,717	.....	.....	.....	.....	.....	.....	2,106,717
Malta.....	56,187	.....	.....	.....	.....	.....	.....	56,187
Norway.....	1,747,019	.....	.....	.....	.....	.....	.....	1,747,019
Sweden.....	937,666	.....	.....	.....	.....	.....	.....	937,666
Unknown.....	3,739,538	.....	.....	.....	.....	.....	.....	3,739,538
Grand Total.....	53,617,213	884,925	667,588	119,945	25,714	234,247	39,969	55,589,601

## HARBOUR RAILWAY TERMINALS

The decrease which had been noted in the past few years in the movement of railway traffic on the Harbour Commissioners' railway system continued throughout the first quarter of the year 1933, with the result that railway operation during the winter months was on a still smaller scale than in 1932. The decrease for this period amounted to approximately 13%.

Unprecedented conditions prevailed during the greater part of the season of navigation. With the exception of the months of August and September, which recorded slight gains in the volume of traffic, the first since the commercial depression set in, all other months gave lower returns than in 1932. There are, however, some favourable factors revealed in the review of the year's railway operations, which help to offset the many unfavourable features. For example, there is unmistakeable evidence that the export rail traffic, with the exception of grain, made gains over the previous year. Local traffic continued its decline.

With rail-borne grain aggregating only 1,826 cars for the year, as compared with 4,027 cars in 1932, there is no record since 1913 of any year having given such low returns in a source of traffic which previously furnished an important part of the operations of the Port's railway system.

An outstanding increase in the cattle trade is recorded for the year, with a total of over 1,600 cars, in comparison with 600 cars in 1932. This will be considered a favourable result, but from an operating point of view, the fact must not be lost sight of that this traffic requires costly service which is not given any other traffic. Under existing handling arrangements, the constant attendance of a locomotive is required during the time of unloading without any additional revenue to the Commissioners than the tariff switching rate.

Although the outward revenue cars decreased by 6,000 as compared with 1932, the general import cargo shipped by

rail appears to have been maintained on a level equal to that of last year. Rail shipments of import coal and of bananas were considerably lighter than in 1932.

Local rail shipments from industries with the Commissioners' territory, and the movement of interchange traffic, were on a decreased volume, accounting for the remainder of the loss in traffic.

The unusually low water experienced in the early Fall, and the abnormally premature arrival of the Winter, obviously had an unfavourable effect on operations in the closing months of the season, which otherwise could have been expected to materially reduce the loss of traffic sustained in the first half of the year. From the latter cause only it is estimated that over 1,200 cars of export freight were diverted from the Port. The number of import cars lost from this cause was, no doubt, considerable, but cannot be as accurately determined.

Wage reductions were put into force during the year, and affected all those engaged in railway operations. Partly for this reason, and partly owing to a rigid supervision of controllable expenses, there was a slight operating surplus for the year, without taking account of interest on the capital investment. This is a satisfactory result, in view of the fact that railway revenue was at the lowest figure since 1921, and that the service was in no way impaired.

Two used steam locomotives were purchased, to replace four discarded steam locomotives, which had outlived their usefulness.

The electric locomotives were in operation during 4,414 hours, during which time they covered 12,555 miles.

The handling of merchandise in the Harbour territory in equipment owned or leased by the Commissioners, which formerly produced 10% of the total railway revenue, dwindled to a mere fraction of its former volume, for various reasons, principally the increase in the use of motor transport for this class of service.

A progressive increase is noted from year to year — in 1933 amounting to 20%— in the number of cars which were placed at two different sheds or sections to complete loading or unloading, a service from which the Commissioners derive no additional revenue, but which is of benefit to the users of the facilities of the Port.

The total car handling for the year amounted to 150,327 cars, a decrease of 8% for the twelve months as compared with 1932, and the lowest total since 1921.

The following table gives the mileage of Harbour railway tracks, with the number of cars handled during the past ten years:

	Mileage of Harbour Railway	Number of cars handled
<b>1924</b> .....	63.24	225,377
<b>1925</b> .....	63.55	251,586
<b>1926</b> .....	65.19	205,481
<b>1927</b> .....	67.44	195,853
<b>1928</b> .....	67.99	240,622
<b>1929</b> .....	68.42	242,967
<b>1930</b> .....	69.28	205,082
<b>1931</b> .....	69.60	185,155
<b>1932</b> .....	69.55	164,060
<b>1933</b> .....	69.82	150,327

The extent of the Harbour Commissioners' railway tracks at the end of 1933 is as follows:

	Lin. Ft.	Miles
South of Lachine Canal, Bickerdike Pier, Windmill Point Wharf and West.....	50,264	9.5197
To Guard Pier.....	10,400	1.9697
Sections 12 to 46, high level, main line	57,079	10.8104
To piers, elevators, cross-overs, sidings, etc.....	130,184	24.6560



	Lin. Ft.	Miles
Sections 35 to 46, low level, main line	10,080	1.9091
Sections 46 to 101, high level, main line	54,134	10.2526
To wharves, industries, etc.....	54,211	10.2672
At South Shore, St. Lambert.....	2,300	0.4356
Grand total tracks, end of 1933.....	368,652	69.8203
Grand total tracks, end of 1932.....	367,242	69.5531
Increase in 1933.....	1,410	0.2672

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## COLD STORAGE WAREHOUSE

The Harbour Commissioners' General and Cold Storage Warehouse was operated during 1933 under the same conditions of efficiency and successful handling of goods which have characterized this plant since its inception.

The year commenced with a fairly large stock of goods in store, and while receipts during the entire twelve months were almost 5,000 tons less than in 1932, deliveries were greater than in the previous year, so that at the close of the year, stocks in storage were at their lowest figure for many years.

This condition is considered a reflection of general business throughout 1933, and was accentuated by severe weather early in the Fall, which made it impossible to ship perishable commodities on account of frost.

The principal commodities stored in the Warehouse during 1933, in order of tonnage, were: Cheese, Apples, Vegetables, Fruits, Butter, Fish, Meat, Nuts, Poultry, Eggs and Dry Goods.

## HARBOUR POLICE DEPARTMENT

The Harbour Commissioners' police department, which maintains day and night patrol along the entire length of the Harbour front, from Windmill Point to Montreal East, enforcing order and safeguarding life and property within the Port, functioned in its usual efficient manner during 1933.

During the season of navigation the force consisted of a chief, three captains and forty-two constables. During the winter season of 1933-34, twenty-five constables were retained on duty. These men are laid off one day each week during the winter, thus giving the remaining seventeen constables an opportunity of working at least two days each week instead of being laid off for the entire winter.

The police department also attends to traffic duty on the Montreal Harbour Bridge.

During the year 44 arrests were made for various offences, being brought before the Police and Recorder's Courts, while 13 boys were brought before the Juvenile Court. In addition, 61 cases of traffic violation were dealt with. Twenty-six deaths occurred on the Harbour during 1933, including 21 drownings, 2 accidental deaths, 2 sudden deaths, and 1 suicide. Two hundred and two cases of accident or sudden illness were given first aid by the police department.

Carters to the number of 4,768, loading and delivering merchandise at various points along the Harbour front, were checked by the traffic constables. Taxis to the number of 4,908 were checked on the arrival and departure of passenger vessels.

The Police car covered 26,002 miles during the year. The two motorcycles used on the Harbour Bridge covered 39,634 miles.

## COMMODITY TONNAGE STATEMENT

The combined tonnage of import, export and domestic merchandise handled through the Port of Montreal in 1933 was 10,565,408 tons.

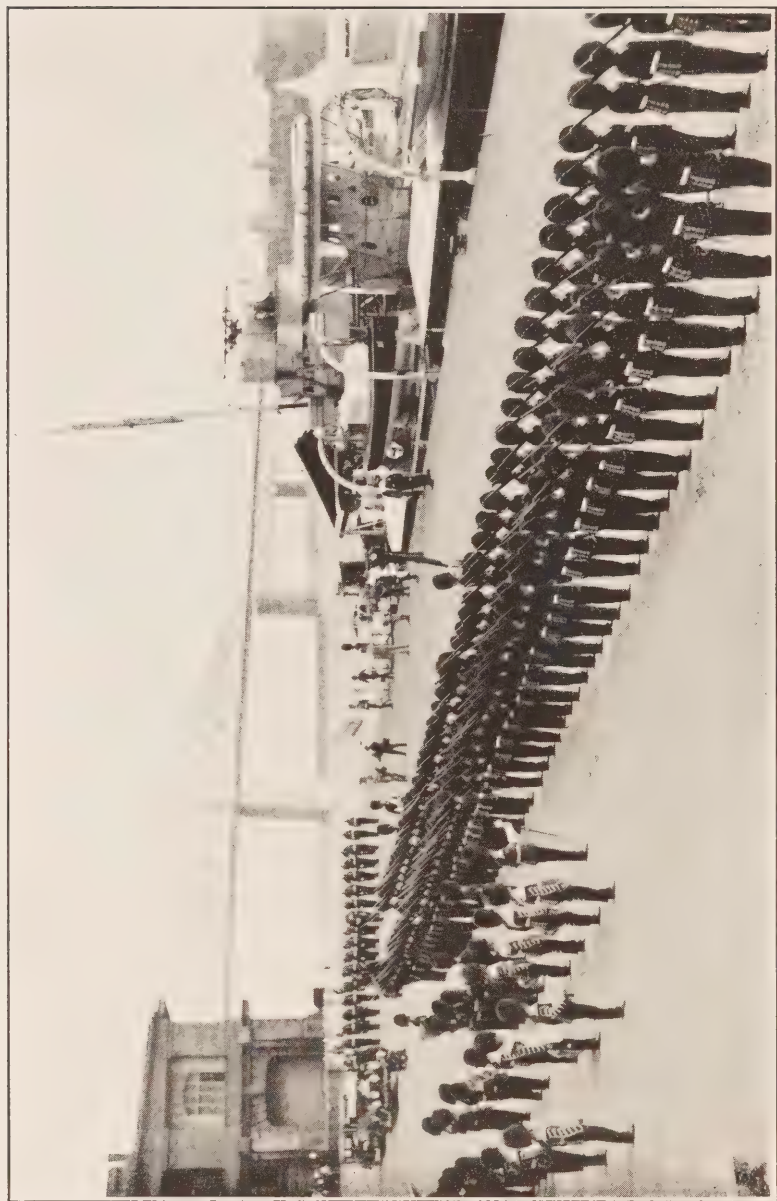
This was a decrease of 179,930 tons, or less than 2%, from the figure for the previous year. Imports increased by 503,399 tons, and domestic merchandise increased by 440,113 tons. Exports decreased by 1,123,442 tons, and reached their lowest figure since 1920.

The drop in export tonnage was entirely due to the falling off in exports of grain, viz.:

Wheat, decreased by.....	741,166 tons
Rye, decreased by.....	223,793 tons
Barley, decreased by.....	208,997 tons
Oats, decreased by.....	93,647 tons
Corn, decreased by.....	58,675 tons
Soya Beans, decreased by.....	15,859 tons
	<hr/>
	1,342,137 tons

Probably the most distinctive feature of the movement of merchandise through the Port of Montreal in 1933 was the successful development of the inward movement of bulk cargo commodities. The principal ones, of course, were coal and oil, and it is worth recording that substantial increases were gained in both these commodities in the season under review. In fact, new high records for the Port's history were reached by imports of coal and oil in 1933. Coal tonnage inward (including 1,404,747 tons of Nova Scotia bituminous, which is listed in the Domestic Commodity statement), amounted to 3,020,062 tons. Oil and gasoline reached a new peak with 1,822,342 tons. Thus the combined tonnage of these two commodities alone represented 4,842,404 tons, or almost half of the entire cargo tonnage for the year.

The steady growth of import tonnage has been a factor of importance in keeping up the total cargo tonnage passing



HIS EXCELLENCY THE GOVERNOR-GENERAL AND VICE-ADMIRAL HAGGARD RECEIVING MILITARY  
HONOURS ON DISEMBARKING FROM H. M. S. "DANAE" AT SECTION 23.



through the port, in view of the decline in export grain tonnage. For the fifth successive year imports again increased, as the following table shows:

## Imports

1928.....	2,543,685 tons
1929.....	3,256,991 tons
1930.....	3,376,182 tons
1931.....	3,568,542 tons
1932.....	4,036,045 tons
1933.....	4,539,444 tons

The following comparative statement shows the division of tonnage of merchandise for the past three years:

	1931 tons	1932 tons	1933 tons
Imports.....	3,568,542	4,036,045	4,539,444
Exports.....	3,036,835	3,926,315	2,802,873
Domestic.....	3,308,997	2,782,978	3,223,091
	<hr/> 9,914,374	<hr/> 10,745,338	<hr/> 10,565,408

The most notable increases in imports were: petroleum oil (327,213 tons), anthracite coal (148,851 tons), woodpulp (80,420 tons), manganese ore (44,459 tons), tin plate (31 453 tons), iron ore (29,480 tons), molasses (17,779 tons), sulphur (11,336 tons), black sheets (8,367 tons), refined sugar (5,440 tons), speigeleisen (4,480 tons), and wool (4, 265 tons). Decreases were noted in gasoline (100,366 tons), raw sugar (46,230 tons), whiting (24,904 tons), bituminous coal (20,766 tons), raw fruit (20,476 tons), iron and steel sheets (13,723 tons), and phosphate rock (11,859 tons), etc.

Forty-five commodities showed increases in exports, of which the most important were: flour (27,238 tons), wire rods (26,071 tons), automobiles & parts (24,867 tons), iron and steel scrap (20,980 tons), cured meats (20,257 tons), copper matte (15,377 tons), cereals (14,603 tons), lard (10,736 tons), as well as smaller increases in exports

of pulpboard, copper cathodes, woodpulp, catsup, canned goods, rubber manufactures, soup in tins, eggs, fruit in tins, alfalfa meal, pitch, refined sugar, etc. In addition to the decreases in grain, referred to above, there were also decreases in copper bars, crude petroleum oil, rolled oats, bran, liquors, middlings, shorts, cheese, oilcake meal, oatmeal, animal foods, etc.

Increases in domestic commodities were as follows: bituminous coal (225,786 tons), grain for local delivery (124,503 tons) gasoline (59,151 tons), crude oil (84,567 tons), coal oil (30,881 tons), anthracite coal (26,979 tons), molasses (18,659 tons), firewood (20,527 tons), potatoes (8,504 tons), and fishing apparatus (4,996 tons). Decreases were noted in fuel oil (39,527 tons), cement (26,193 tons), crushed stone (21,232 tons), gypsum (10,764 tons), raw vegetables (10,356 tons), sand (8,399 tons), and smaller decreases in refined sugar, lumber, flax seed, iron and steel, and flour.

The following are the quantities of the more important commodities included in the Domestic Tonnage list:

	tons
Bituminous coal.....	1,405,118
Gasoline.....	416,963
Crude oil.....	303,112
Fuel oil.....	301,564
Grain for local delivery.....	238,972
Refined sugar.....	52,505
Anthracite coal.....	50,476
Lubricating oil.....	48,665
Cement.....	41,880
Coal oil.....	32,623
Lumber.....	31,455
Flour.....	22,353
Firewood.....	22,322
Molasses.....	22,108
Iron & steel.....	18,174
Gypsum.....	17,569
Sand.....	17,157
Potatoes.....	8,635
Fish, in tins.....	7,632

The relative importance of the movement of the principal import and export commodities can be gauged from the following comparative lists:

### PRINCIPAL IMPORTS

	tons
Oil, crude petroleum.....	1,672,297
Anthracite coal.....	1,321,649
Bituminous coal.....	229,143
Raw sugar.....	204,301
Woodpulp.....	186,959
Gasoline.....	60,831
Grain, Corn in bulk.....	55,719
Tin plates.....	51,525
Sulphur.....	45,494
Manganese Ore.....	44,459
Grain, Rye in bulk.....	44,413
Molasses.....	39,520
Grain, Flax in bulk.....	31,763
Fruit, raw.....	30,757
Iron Ore.....	29,513
Salt.....	24,965
Dry Goods.....	22,958
Iron & Steel sheets.....	17,507
Iron & Steel skelps.....	15,431
Fruit, dried, in tins, etc.....	13,894
Toys.....	12,888
Glass Sheets.....	12,856
Coke.....	12,058
Binder Twine.....	10,866
Iron & Steel piping, bars, hoops, etc.....	10,857
Tea.....	9,830
Oils, various.....	9,567
Wool.....	9,251
Sand.....	8,401
Black Sheets.....	8,367
Cocoa Beans.....	8,039
Yarns.....	8,020
China Clay.....	7,284

	tons
Phosphate Rock.....	6,731
Soda—Sulphide, Sulphate, Bicarbonate, etc....	6,319
Earthenware.....	6,288
Whiting.....	6,035
Muriate of Potash.....	5,763
Glassware.....	5,486
Coffee.....	5,477
Refined Sugar.....	5,440
Rice.....	5,430
Coconuts.....	5,348
Paper, various.....	5,263
Iron & Steel, structural.....	5,221
Machinery.....	5,168
Vegetables, raw.....	4,923
Superphosphates.....	4,864
Spiegeleisen.....	4,480
Fire Brick.....	4,265
Jute Cloth.....	4,233
Nuts, edible.....	3,987
Steel tires, rails, billets.....	3,965
Lithopone.....	3,802
Liquors.....	3,538
Hides.....	3,281
Raw Cotton.....	3,201
Zinc Oxide.....	3,091
Wines.....	3,014
Nitrate of Soda.....	2,888
Fish in tins, cured etc,.....	2,823
Garden Bulbs.....	2,790
Pebbles.....	2,668
Automobiles and parts.....	2,566
Miscellaneous Chemicals.....	2,566
Sisal.....	2,554
Guano.....	2,218
Meats, in tins.....	2,156
Sulphate of Potash.....	2,130
Fuller's Earth.....	2,044

## PRINCIPAL EXPORTS

	tons
Wheat.....	1,610,425
Flour.....	262,499
Raw fruit.....	71,486
Automobiles and parts.....	58,698
Lard.....	57,710
Copper matte, bars, cathodes, etc.....	53,418
Cured meats.....	52,170
Wire.....	37,308
Paper.....	35,095
Cheese.....	34,441
Woodpulp.....	34,105
Iron & steel.....	24,262
Cereals.....	24,233
Oats.....	23,584
Cattle.....	19,311
Rubber manufactures.....	18,747
Barley.....	16,022
Crude petroleum oil.....	13,432
Spelter.....	12,216
Liquors.....	11,275
Bran.....	10,231
Catsup.....	10,093
Cement.....	9,325
Ship stores.....	8,835
Tar.....	8,747
Pulpboard.....	8,339
Milk in tins, powdered, etc.....	7,115
Pitch.....	6,483
Soup in tins.....	6,039
Meats, fresh or frozen.....	5,699
Buckwheat.....	5,622
Oilcake meal.....	5,462
Animal foods.....	5,396
Acetic acid.....	5,264
Fruit, in tins.....	5,111
Canned goods.....	4,795
Alfalfa meal.....	4,738



	tons
Plaster board.....	4,709
Refined sugar.....	4,358
Fish.....	4,024
Shorts.....	3,828
Binder twine.....	3,757
Eggs in shell.....	3,663
Wallboard.....	3,633
Meats, in tins.....	3,533
Rye.....	3,358
Dry goods.....	3,357
Agricultural implements.....	3,298
Hardwood flooring.....	3,259
Asbestos.....	3,159
Soap.....	2,970
Nickel cathodes.....	2,821
Shooks.....	2,577
Tomato juice.....	2,547
Brass scrap.....	2,400
Tobacco.....	2,246
Butter.....	2,229
Grass seed.....	2,010
Empty barrels & drums.....	1,981
Stoves.....	1,940
Vegetables in tins.....	1,935
Electrical apparatus.....	1,933
Sausage casings.....	1,884
Rolled oats.....	1,860
Magnesite.....	1,843
Macaroni.....	1,842
Fibreboard.....	1,832
Phosphorus.....	1,807
Settlers' effects.....	1,779
Leather manufactures.....	1,752
Gypsum lath.....	1,714
Garden bulbs.....	1,689
Machinery.....	1,639
Railway equipment.....	1,637
Nails.....	1,509

## IMPORTS 1933

COMMODITY	Distribution after Import			
	Total Tons	Rail	Vessel	Other
Acid, Boric.....	45	1	8	36
Acid, Carbolic.....	81	1	65	15
Acid, Citric.....	269	15	—	254
Acid, Formic.....	108	30	—	78
Acid, Oleic.....	342	50	22	270
Acid, Stearic.....	616	46	24	546
Acid, Tartaric.....	349	15	56	278
Acid, Various, N.O.S.....	608	35	354	219
Aeroplanes & Parts.....	57	15	—	42
Agricultural Implements.....	110	48	20	42
Agricultural Implement Parts.....	10	9	—	1
Alcohol Industrial.....	128	126	—	2
Alum.....	315	12	130	173
Alumina, Hydrate of.....	10	—	7	3
Alumina, Sulphate of.....	1004	260	198	546
Alumino Ferric.....	427	—	—	427
Aluminum Bars & Ingots.....	41	1	34	6
Aluminum Foil.....	7	1	—	6
Aluminum, Mfrs of, N.O.S.....	246	22	206	18
Aluminum, Scrap.....	36	36	—	—
Aluminum, Sheets.....	55	3	46	6
Ammonia, N.O.S.....	99	—	60	39
Ammonia, Bicarbonate of.....	22	—	7	15
Ammonia, Carbonate of.....	108	2	14	92
Ammonia Chloride.....	477	134	289	54
Ammonia, Muriate of.....	167	31	100	36
Ammonia, Nitrate of.....	28	—	1	27
Ammonia, Sulphate of.....	31	—	31	—
Ammunition.....	2	2	—	—
Anchors.....	58	—	—	58
Animal Foods, N.O.S.....	271	78	59	134
Animals, small.....	49	—	—	49
Antimony.....	79	—	—	79
Arrowroot.....	85	—	13	72
Artists Materials.....	64	6	41	17
Asbestos, Mfrs of.....	267	30	35	202
Asbestos, N.O.S.....	4	—	—	4
Asbestos Fibre.....	1	—	1	—
Asphalt.....	2	2	—	—
Asphalt Shingles.....	2	—	—	2

COMMODITY	Distributionn after Import			
	Total Tons	Rail	Vessel	Other
Automobiles & Parts.....	2,566	49	85	2,432
Axles.....	38	7	23	8
Baby carriages.....	284	41	54	189
Bags & Bagging (jute).....	23	—	2	21
Barium, Carbonate of.....	157	—	—	157
Barium Chloride.....	62	—	—	62
Barrels & Drums (empty).....	1,846	1,097	2	747
Barytes.....	1,213	46	119	1,048
Basic Slag.....	100	—	—	100
Basketware.....	782	407	234	141
Batteries.....	10	9	1	—
Battery Plates.....	104	4	100	—
Beans, common.....	163	3	61	99
Beans, N.O.S.....	9	—	2	7
Bedding.....	5	2	—	3
Beer.....	317	21	246	50
Beer Colouring.....	14	1	—	13
Bees Wax.....	25	1	3	21
Belting.....	44	15	5	24
Benzine.....	7	1	5	1
Bicycles & Parts.....	790	599	132	59
Bicycles, Motor.....	238	96	39	103
Bird Cages.....	91	5	30	56
Black Sheets.....	8,367	2,863	1,909	3,595
Blanc Fixe.....	160	24	—	136
Boats, N.O.S.....	134	85	16	33
Boiler Lagging.....	143	61	3	79
Boilers & Parts.....	6	1	—	5
Bolts & Nuts.....	49	1	8	40
Bone Ash.....	21	11	3	7
Bone Black.....	117	57	—	60
Bone Meal.....	116	101	15	—
Borax.....	72	—	55	17
Books.....	1,720	281	1,112	327
Boots & Shoes.....	938	301	360	277
Bottle Capsules, (metal).....	140	21	29	90
Bottles, Empty (common).....	601	54	177	370
Bottling Materials.....	59	5	32	22
Bottles, Thermos.....	498	39	232	227
Boxes, Empty.....	85	19	15	51
Bran.....	125	—	125	—
Brass, Mfrs of.....	275	73	16	186

COMMODITY	Distribution after Import			
	Total Tons	Rail	Vessel	Other
Brass, Wire.....	96	93	—	3
Bread.....	74	9	42	23
Brick, Fire.....	4,265	358	311	3,596
Brick, Building.....	47	43	—	4
Brick, N.O.S.....	29	22	1	6
Bronze, Mfrs of.....	66	2	4	60
Bronze Powder.....	7	2	1	4
Bronze Wire.....	104	85	1	18
Brooms & Brushes.....	200	24	32	144
Bullion.....	7	—	—	7
Butter.....	210	—	—	210
Buttons.....	42	15	3	24
Cable.....	56	4	51	1
Calcium, Carbonate of.....	1	1	—	—
Calcium Chloride.....	688	—	—	688
Calcium, Nitrate of.....	1	—	—	1
Canada Plates.....	1,827	16	958	853
Candles.....	22	1	20	1
Canned Goods, N.O.S.....	90	23	16	51
Captax.....	2	—	—	2
Caramel.....	111	27	1	83
Carbide, N.O.S.....	1	—	—	1
Carbon Black.....	8	6	—	2
Cardboard.....	241	99	81	61
Carpets & Mattings.....	1,861	1,359	171	331
Casings, Sausage.....	379	59	67	253
Castings.....	320	256	59	5
Catsup.....	18	17	—	1
Celluloid, Mfrs of.....	78	10	11	57
Celluloid, Sheets.....	75	8	2	65
Cement, Building.....	115	76	—	39
Cement, N.O.S.....	107	8	3	96
Cereals.....	14	2	1	11
Chains.....	141	15	6	120
Chalk.....	562	255	128	179
Chalk, Precipitated.....	69	2	1	66
Charcoal.....	752	144	37	571
Charcoal, Animal.....	211	—	—	211
Cheese.....	458	84	43	331
Chemicals, N.O.S.....	2,566	543	630	1,393
Chicory.....	25	6	1	18
Chinaware.....	889	277	244	368

COMMODITY	Distribution after Import			
	Total Tons	Rail	Vessel	Other
Chrometan.....	46	—	4	42
Church Ornaments.....	35	4	—	31
Clay, Burnt.....	59	1	12	46
Clay, China.....	7,284	5,323	724	1,237
Clay, Fire.....	235	62	2	171
Clay, Modelling.....	5	1	4	—
Clay, N.O.S.....	100	78	7	15
Clay, Unmfgd.....	311	82	222	7
Cleansers.....	14	1	3	10
Clocks.....	267	29	115	123
Clothes Pins.....	1	—	1	—
Coal, Anthracite.....	1,321,649	7	269,921	1,051,721
Coal, Bituminous.....	229,143	506	37,406	191,231
Cocoa.....	648	65	474	109
Cocoa Beans.....	8,039	96	1,062	6,881
Cocoa Butter.....	70	31	31	8
Cocoanuts.....	5,348	36	476	4,836
Coffee.....	5,477	51	1,209	4,217
Coffee Essence.....	21	—	11	10
Coke.....	12,058	35	—	12,023
Confectionery.....	1,273	232	673	368
Copperas.....	115	—	8	107
Copper, Bars.....	3	—	—	3
Copper, Ingots.....	1	—	—	1
Copper, Mfrs of.....	177	48	5	124
Copper, Scrap.....	5	—	—	5
Copper, Sulphate of.....	659	120	127	412
Copper, Wire.....	4	1	2	1
Cork, Mfrs of.....	386	28	21	337
Corkboard.....	791	—	174	617
Cork, Waste.....	568	1	—	567
Cotton, Absorbent.....	246	19	101	126
Cotton, Raw.....	3,201	1,925	3	1,273
Cotton, Waste.....	199	64	73	62
Cream Separators.....	293	74	116	103
Cream of Tartar.....	269	16	87	166
Creosote.....	65	1	44	20
Crockery.....	1,817	219	824	774
Crucibles.....	157	96	51	10
Cutch.....	6	3	3	—
Cutlery.....	206	77	38	91
Degras.....	278	57	25	196

COMMODITY	Distribution after Import			
	Total Tons	Rail	Vessel	Other
Dextrine.....	638	81	245	312
Disinfectants.....	327	79	73	175
Doors, Grain.....	22	—	—	22
Dowels.....	9	6	—	3
Drugs & Medicines.....	486	21	32	433
Druggists Sundries.....	906	176	264	466
Dry Colors, N.O.S.....	1,162	174	100	888
Dry Goods.....	22,958	7,691	5,605	9,662
Dyes.....	1,424	225	212	987
Dynamite.....	20	20	—	—
Earthenware.....	6,288	1,409	2,026	2,853
Effects Settlers.....	1,056	780	79	197
Eggs, in Shell.....	8	—	6	2
Eggs, N.O.S.....	5	—	—	5
Electrical Apparatus.....	469	138	103	228
Electros.....	6	1	1	4
Emery Cloth.....	12	1	2	9
Emery Powder.....	21	14	5	2
Enamelware.....	994	68	468	458
Engines.....	249	125	23	101
Explosives, N.O.S.....	16	16	—	—
Extract Logwood.....	16	7	—	9
Extract Sumac.....	33	18	7	8
Extract Various.....	99	14	30	55
Feathers.....	61	22	38	1
Felt, N.O.S.....	145	18	6	121
Ferro Manganese.....	19	—	—	19
Fertilizers, N.O.S.....	1,793	30	1,757	6
Fibres.....	132	59	15	58
Fibre Board.....	17	2	1	14
Filtermass.....	30	10	5	15
Fire Arms.....	32	27	—	5
Fish, Cured.....	1,103	191	446	466
Fish, Fresh or Frozen.....	6	—	—	6
Fish, in Tins.....	1,714	251	445	1,018
Fishing Apparatus.....	156	49	23	84
Flax Seed.....	8	—	—	8
Flour, Corn.....	44	—	44	—
Flour, Potato.....	1,277	277	281	719
Flour, Sago.....	374	28	3	343
Flour, Wheat.....	321	3	34	284



COMMODITY	Distribution after Import			
	Total Tons	Rail	Vessel	Other
Flour, Wood.....	56	56	—	—
Flour, N.O.S.....	37	3	30	4
Fluorspar.....	775	—	679	96
Fly Catchers.....	331	14	302	15
Forgings.....	76	74	—	2
Fruit, Dried.....	9,903	281	4,003	5,619
Fruit, in Brine.....	1,035	—	476	559
Fruit, in Tins.....	2,091	514	217	1,360
Fruit Juices.....	216	8	20	188
Fruit, Pectin.....	1	—	—	1
Fruit, Pulp.....	648	2	246	400
Fruit, Raw.....	30,757	2400	128	28,229
Fullers Earth.....	2,044	1,035	524	485
Furniture.....	1,481	615	267	599
Furs.....	529	182	47	300
Fur Waste.....	6	—	—	6
Galvanized Sheets.....	1,259	316	137	806
Ganister.....	2	2	—	—
Garden Bulbs.....	2,790	1,310	895	585
Gasoline, in Pkgs.....	68	1	2	65
Gasoline, in Bulk.....	60,763	—	—	60,763
Gas, in Cylinders.....	1	1	—	—
Gelatine.....	863	87	249	527
Ginger.....	110	6	16	88
Glass Jars, N.O.S.....	13	3	4	6
Glass Sheets.....	12,856	2,727	3,591	6,538
Glassware.....	5,486	803	1,715	2,968
Glue.....	444	11	199	234
Glycerine.....	218	67	100	51
Grain, Barley in bags.....	6	—	5	1
Grain, Wheat in bags.....	1	1	—	—
Grain, in Bulk, Corn.....	55,719	39,469	16,250	—
Grain, in Bulk Flax.....	31,763	—	28,571	3,192
Grain, in Bulk, Rye.....	44,413	—	44,413	—
Granite Blocks.....	1,929	659	1,219	51
Granite Monuments.....	464	150	19	295
Grease.....	129	29	28	72
Grindstones.....	58	9	—	49
Grindings Wheels.....	1	—	1	—
Groceries, N.O.S.....	669	465	117	87
Guano.....	2,218	—	2,218	—
Gums, Various.....	450	135	67	248

COMMODITY	Distribution after Import			
	Total Tons	Rail	Vessel	Other
Gypsum, Crude.....	81	14	8	59
Gypsum, Plaster.....	2	—	—	2
Hair.....	54	48	5	1
Handles Wooden.....	2	1	—	1
Hardware.....	624	174	214	236
Hatters, Fur.....	346	230	—	116
Hemp.....	438	312	125	1
Herbs.....	11	1	5	5
Hides.....	3,281	2,902	20	359
Hide Cuttings.....	186	184	—	2
Hollowware, N.O.S.....	980	220	349	411
Hops.....	198	50	9	139
Horses.....	38	14	—	24
Inks.....	95	17	28	50
Instruments, Musical.....	240	159	63	18
Instruments, Scientific.....	83	26	3	54
Insulators.....	148	14	6	128
Iron & Steel Bars.....	2,907	544	85	2,278
Iron & Steel Balls.....	1,006	395	498	113
Iron & Steel Bands.....	112	38	—	74
Iron & Steel Hoops.....	1,376	595	367	414
Iron & Steel, Mfrs of.....	1,816	760	224	832
Iron & Steel Piping.....	3,599	604	6	2,989
Iron & Steel Pipe Fittings.....	41	3	—	38
Iron & Steel Sheets.....	17,507	4,520	3,003	9,984
Iron & Steel Skelps.....	15,431	527	9,600	5,304
Iron & Steel Structural.....	5,221	1,807	289	3,125
Iron Ore.....	29,513	5	23,521	5,987
Iron Pig.....	1,191	112	196	883
Iron Sand.....	115	11	75	29
Iron, Sulphate of.....	91	—	1	90
Jewellery.....	6	—	1	5
Jute Cloth.....	4,233	426	161	3,646
Jute, Mfrs of.....	162	8	3	151
Kainit.....	20	—	—	20
Lamp Black.....	12	—	3	9
Lamps & Lanterns.....	60	14	12	34
Lanolin.....	5	—	—	5

COMMODITY	Distribution after Import			
	Total Tons	Rail	Vessel	Other
Lard.....	37	—	5	32
Lawn Mowers.....	35	19	1	15
Lead, Acetate of.....	12	8	3	1
Lead, Arsenate of.....	83	82	—	1
Lead, Mfrs of N.O.S.....	35	4	4	27
Lead, Nitrate of.....	27	5	22	—
Lead, Scrap.....	2	—	—	2
Lead, Sheet.....	8	—	—	8
Lead Oxide.....	153	—	153	—
Leather in Bales.....	342	162	43	137
Leather, Mfrs of.....	719	212	176	331
Leaves Dried.....	84	1	7	76
Lentils.....	58	2	32	24
Lime.....	1	1	—	—
Lime, Carbonate of.....	38	—	13	25
Lime, Chloride of.....	1,051	159	257	635
Lime, Chlorinated.....	62	—	—	62
Lime, Phosphate of.....	28	5	—	23
Lime, Sulphate of.....	9	—	2	7
Lime, Sulphite of.....	21	—	—	21
Linoleum.....	161	41	29	91
Liquors, Intoxicating.....	3,538	149	2,395	994
Litharge.....	231	50	6	175
Lithoponc.....	3,802	895	486	2,421
Lobsters in Tins.....	19	4	—	15
Logs, Mahogany, etc.....	22	22	—	—
Lumber, Dressed f.b.m.....	6	5	1	—
Lumber, Rough f.b.m.....	29	—	—	29
Macaroni.....	36	29	—	7
Machinery, N.O.S.....	5,168	2,215	457	2,496
Machines Sewing.....	151	131	16	4
Magnesia.....	498	40	64	394
Magnesite.....	82	3	1	78
Magnesium, Carbonate of.....	30	20	9	1
Magnesium, Chloride of.....	59	—	—	59
Malt.....	170	—	7	163
Malt Extract.....	120	8	52	60
Malt Syrup.....	30	3	23	4
Manganese Ore.....	44,459	—	44,459	—
Manganese Silica.....	6	—	—	6
Marble Chip.....	28	—	—	28
Marble, Mfrs of.....	147	4	1	142

COMMODITY	Distribution after Import			
	Total Tons	Rail	Vessel	Other
Marble Slabs.....	16	11	—	5
Matches.....	52	—	26	26
Match Splints.....	92	46	46	—
Meal, Oat.....	2	—	—	2
Meal, Oilcake.....	1,016	—	3	1,013
Meal, Rice.....	4	—	—	4
Meal, Soya.....	101	—	—	101
Meal, N.O.S.....	178	22	8	148
Meats, Cured.....	163	—	—	163
Meat Extract.....	202	—	—	202
Meats, Fresh or Frozen.....	190	—	—	190
Meats in Tins.....	2,156	20	107	2,029
Meters.....	38	27	4	7
Metals, N.O.S.....	161	30	2	129
Mica.....	4	3	—	1
Milk in Tins.....	18	—	—	18
Milk Powder.....	1	1	—	—
Millinery.....	1,420	844	169	407
Mineral Waters.....	1,137	243	39	855
Molasses.....	39,520	74	54	39,392
Moss.....	134	48	17	69
Mushrooms.....	148	51	33	64
Mustard.....	357	37	167	153
Mustard Bran.....	46	—	—	46
Nails.....	12	4	1	7
Napthaline.....	466	61	3	402
Nickel Matte.....	44	—	—	44
Notions.....	698	198	278	222
Nuts, Edible N.O.S.....	3,987	300	1,796	1,891
Nutmegs.....	103	2	41	60
Oakum.....	65	—	—	65
Oilcloth.....	40	5	5	30
Oil, Bean.....	461	2	2	457
Oil, Coal.....	21	—	—	21
Oil, Castor.....	633	36	193	404
Oil, Coconut.....	934	183	28	723
Oil, Cod Liver.....	859	319	109	431
Oil, Cotton Seed.....	389	200	—	189
Oil, Crude Petroleum in Bulk.....	1,672,297	—	—	1,672,297
Oil, Essential.....	161	6	29	126
Oil, Fish.....	163	51	75	37

COMMODITY	Total Tons	Distribution after Import		
		Rail	Vessel	Other
Oil, Fuel.....	1	—	—	1
Oil, Linseed.....	742	1	23	718
Oil, Lubricating.....	438	81	166	191
Oil, Mineral.....	4	1	3	—
Oil, Oleo.....	9	1	—	8
Oil, Olive.....	1,528	41	462	1,025
Oil, Palm.....	702	680	—	22
Oil, Rape.....	74	9	33	32
Oil, Seal.....	286	24	6	256
Oil, Various N.O.S.....	2,162	1,534	94	534
Oilmen's stores N.O.S.....	157	6	59	92
Olives.....	591	56	371	164
Oysters.....	14	14	—	—
Oyster Shells.....	224	—	—	224
Oxides, N.O.S.....	34	3	2	29
Paints.....	259	57	64	138
Paperboard.....	1	—	—	1
Paper, Blotting.....	67	1	64	2
Paper, Grease Proof.....	163	1	6	156
Paper, Parchment.....	130	13	13	104
Paper, Printing.....	911	463	356	92
Paper, Stock.....	861	834	—	27
Paper, Wall.....	81	23	29	29
Paper, Wrapping.....	991	299	219	473
Paper, Various N.O.S.....	2,059	303	633	1,123
Paris Green.....	85	1	22	62
Paste.....	24	2	11	11
Peas.....	202	107	41	54
Peas, Split.....	66	5	9	52
Peat.....	198	53	122	23
Pebbles.....	2,668	2,603	—	65
Peels.....	62	8	49	5
Pepper.....	553	6	159	388
Perfumery.....	124	20	21	83
Peroxide.....	396	—	60	336
Phosphate Rock.....	6,731	—	—	6,731
Phosphorus.....	1	1	—	—
Photo Supplies.....	136	108	16	12
Piassava.....	18	5	—	13
Pickles.....	25	5	15	5
Pictures & Frames.....	140	63	4	73
Pimento.....	129	1	41	87

COMMODITY	Total Tons	Distribution after Import		
		Rail	Vessel	Other
Pipe, Earthen Drain.....	83	—	—	83
Pipes, Tobacco N.O.S.....	203	29	21	153
Pipes, Tobacco Clay.....	41	3	—	38
Pitch.....	19	—	1	18
Plaster, N.O.S.....	197	4	7	186
Plumbago.....	36	1	—	35
Polishes.....	437	26	212	199
Potash, Carbonate of.....	159	48	7	104
Potash, Caustic.....	241	—	12	229
Potash, Chlorate of.....	712	19	—	693
Potash, Muriate of.....	5,763	680	3,743	1,340
Potash, Nitrate of.....	273	69	14	190
Potash, Permanganate.....	200	154	—	46
Potash, Sulphate of.....	2,130	827	405	898
Potash, Various N.O.S.....	36	1	7	28
Potatoes.....	775	—	—	775
Poultry.....	24	—	—	24
Preserves, N.O.S.....	300	3	146	151
Printed Matter.....	330	86	112	132
Propellers.....	7	3	—	4
Pulleys & Blocks.....	45	6	11	28
Pulpboard, N.O.S.....	70	9	33	28
Pumice Stone.....	167	—	20	147
Pumps.....	31	9	1	21
Putty.....	174	9	8	157
Radiators.....	15	1	—	14
Radios & Parts.....	8	1	—	7
Rags.....	1,733	78	186	1,469
Railway Equipment.....	1,642	—	—	1,642
Rattans.....	51	9	4	38
Razors & Parts.....	55	24	16	15
Refrigerators.....	3	1	—	2
Rennet.....	9	4	—	5
Resin.....	546	1	2	543
Rice.....	433	—	23	410
Rice, Unhulled.....	4,997	2	—	4,995
Roots, N.O.S.....	87	84	1	2
Rope.....	463	65	32	366
Rope, Scrap.....	43	42	—	1
Rubber, Crude.....	72	6	2	64
Rubber, Mfrs of.....	936	138	140	658
Rubber, Scrap.....	2	—	—	2



COMMODITY	Total Tons	Distribution after Import		
		Rail	Vessel	Other
Salt, Bath.....	25	5	16	4
Salt, Coarse.....	24,524	1	47	21,476
Salt, Epsom.....	941	131	110	700
Salt, Fine.....	441	—	9	432
Salt, Health.....	393	2	300	91
Salts, Rochelle.....	53	—	9	44
Salts, Various N.O.S.....	265	4	29	232
Sand, in Bulk.....	8,401	—	—	8,401
Sand, Carborundum.....	1	1	—	—
Sand, N.O.S.....	15	10	2	3
Sauces.....	292	29	200	63
Scales.....	34	8	15	11
Screenings.....	4	—	—	4
Seaweed.....	29	—	2	27
Seed, Bird.....	269	86	132	51
Seed, Caraway.....	77	1	33	43
Seed, Coriander.....	20	—	6	14
Seed, Garden.....	308	157	97	54
Seed, Grass.....	55	32	2	21
Seed, N.O.S.....	99	14	31	54
Shellac.....	89	3	—	86
Shoe Shanks.....	14	—	—	14
Shooks.....	4	4	—	—
Shovels.....	73	8	16	49
Shrubs.....	1,173	667	81	425
Silk Waste.....	21	5	3	13
Silverware.....	238	84	40	114
Sisal.....	2,554	616	1,935	3
Skins, Calf.....	92	52	—	40
Skins, Sheep.....	812	777	13	22
Skins, N.O.S.....	65	20	—	45
Slate.....	80	9	5	66
Soap, Castile.....	543	49	274	220
Soap, Common.....	50	3	27	20
Soap, Powder.....	2	2	—	—
Soap, Liquid.....	21	2	8	11
Soap, Toilet.....	136	18	61	57
Soda, N.O.S.....	13	1	11	1
Soda, Bicarbonate of.....	613	61	463	89
Soda, Bichromate of.....	34	—	1	33
Soda, Carbonate of.....	12	—	7	5
Soda, Caustic.....	1	1	—	—
Soda, Chlorate of.....	418	5	388	25

COMMODITY	Total Tons	Distribution after Import		
		Rail	Vessel	Other
Soda, Cyanide of.....	693	337	158	198
Soda, Nitrate of.....	2,888	2,000	570	318
Soda, Phosphate of.....	336	—	60	276
Soda, Prussiate of.....	12	12	—	—
Soda, Silicate of.....	773	160	321	292
Soda, Sulphate of.....	1,038	128	107	803
Soda, Sulphite of.....	783	151	352	280
Soda, Sulphide of.....	1,434	249	770	415
Soda, Various N.O.S.....	172	26	10	136
Soup in Tins.....	3	—	—	3
Spiegeleisen.....	4,480	—	4,480	—
Spelter.....	2	—	—	2
Spices, N.O.S.....	304	35	74	195
Sponges.....	360	148	—	212
Sporting Goods.....	351	106	64	181
Staples, Metal.....	6	2	1	3
Starch, N.O.S.....	297	60	99	138
Statice.....	42	38	—	4
Stationery.....	518	215	193	110
Statuary.....	197	42	27	128
Stearine.....	8	1	—	7
Steel Billets & Blooms.....	733	704	4	25
Steel Rails.....	1,271	—	—	1,271
Steel Tyres.....	1,961	792	17	1,152
Stone, Unmfgd.....	77	34	1	42
Stoves.....	13	6	—	7
Strawboard.....	5	—	2	3
Sugar, of Milk.....	112	112	—	—
Sugar, Raw.....	204,301	2,059	14,079	188,163
Sugar, Refined.....	5,440	—	5,407	33
Sulphur.....	45,494	28,055	17,206	233
Sundries.....	544	121	159	264
Super-phosphates.....	4,864	—	4,864	—
Syrup, Corn.....	320	7	65	248
Syrup, N.O.S.....	144	2	131	11
Talc.....	306	1	—	305
Tallow.....	476	349	127	—
Tanners Bate.....	118	7	8	103
Tanners Extract.....	139	44	32	63
Tapioca.....	144	2	46	96
Tar.....	133	4	—	129
Tea.....	9,830	325	1,375	8,130

COMMODITY	Total Tons	Distribution after Import		
		Rail	Vessel	Other
Teazles.....	33	29	4	—
Thread.....	825	91	65	669
Tie Plates.....	850	—	—	850
Tiles.....	791	200	155	436
Tin, Ingots.....	210	—	20	190
Tin, Oxide.....	39	18	—	21
Tin, Plates.....	51,525	20,413	7,686	23,426
Tinware.....	401	41	112	248
Tobacco, Raw Leaf.....	84	5	—	79
Tobacco, Mfrs of.....	433	32	23	378
Tobacconists, Sundries.....	1,155	39	104	1,012
Toilet Preparations.....	303	46	70	187
Tomato Juice.....	2	—	—	2
Tomato Paste.....	173	—	—	173
Tools, N.O.S.....	596	75	200	321
Toys.....	12,888	1,147	5,384	6,357
Tractors & Parts.....	23	5	1	17
Trucks.....	160	59	36	65
Trunks.....	1	1	—	—
Tubes, Collapsible.....	56	3	2	51
Turpentine.....	5	—	—	5
Twine Binder.....	10,866	37	8,128	2,701
Twines N.O.S.....	970	92	675	203
Typewriters.....	15	11	1	3
Vacuum Cleaners.....	489	2	—	487
Valises.....	69	12	32	25
Valves.....	49	24	—	25
Varnishes.....	49	9	10	30
Vegetable Fat.....	91	3	13	75
Vegetable in Brine.....	90	2	88	—
Vegetable in Tins.....	107	8	19	80
Vegetable, Raw N.O.S.....	4,923	339	308	4,276
Vehicles, N.O.S.....	8	—	—	8
Veneer.....	109	12	12	85
Vinegar.....	17	4	—	13
Wadding.....	158	51	61	46
Wallboard.....	1	—	—	1
Washing Blue.....	36	5	6	25
Washing Machines.....	3	3	—	—
Wax.....	1,319	2	11	1,306
Wheat Germ.....	1	—	—	1

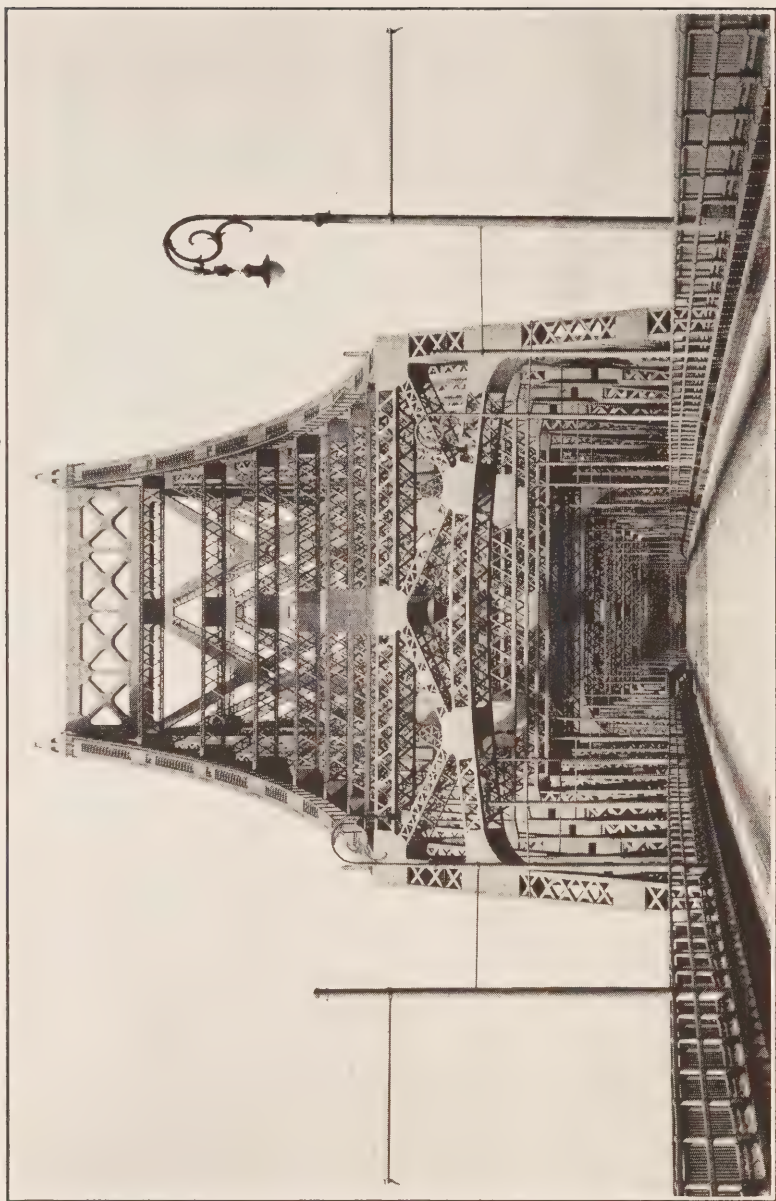
COMMODITY	Total Tons	Distribution after Import		
		Rail	Vessel	Other
Wheels & Parts.....	184	40	49	95
Wheelbarrows.....	1	1	—	—
Whiting.....	6,035	2,616	580	2,839
Window Frames.....	62	—	6	56
Window Rollers.....	31	4	19	8
Wine.....	3,014	102	892	2,020
Wire, Barbed.....	71	3	3	65
Wire, Cloth.....	398	22	7	369
Wire, Fencing.....	10	—	10	—
Wire, Mfgs of N.O.S.....	87	23	13	51
Wire, Netting.....	107	3	8	96
Wire, Rods.....	80	—	18	62
Wire, Rope.....	138	64	13	61
Wire, Steel in Coils.....	1,797	392	384	1,021
Woodenware, N.O.S.....	596	131	219	246
Woodpulp.....	186,959	52	185,924	983
Wood Wool.....	1	—	1	—
Wool.....	7,888	5,472	1,567	849
Wool Grease.....	164	93	24	47
Wool Geasy.....	960	301	—	659
Wool Waste.....	403	137	61	205
Yarns.....	8,020	4,340	2,216	1,464
Yeast.....	22	1	—	21
Zinc Chloride.....	75	13	49	13
Zinc Dross.....	1	—	—	1
Zinc Nitrate.....	17	—	17	—
Zinc Oxide.....	3,091	476	385	2,230
Zinc Sheets.....	320	14	61	245
Zinc Sulphate of.....	74	—	13	61
Zinc White.....	802	—	1	801
Zinc Various N.O.S.....	82	—	13	69
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4,539,444		192,253	813,329	3,533,862

## EXPORTS 1933

COMMODITY	Total Tons	Carried before Export		
		Rail	Vessel	Other
Acid, Acetic.....	5,264	5,041	—	223
Acid, Sulphuric.....	2	—	—	2
Acid, Various N. O. S.....	35	2	21	12
Aeroplanes, & Parts.....	122	77	—	45
Agricultural Implements.....	3,298	2,239	1,011	48
Agricultural Imp. Parts.....	140	140	—	—
Alcohol, Industrial.....	7	4	—	3
Aluminum Bars & Ingots.....	95	64	31	—
Aluminum Foil.....	117	2	115	—
Aluminum, Mfrs of.....	85	72	9	4
Aluminum Scrap.....	293	7	244	42
Aluminum Sheets.....	390	26	364	—
Ammonia, N.O.S.....	5	—	4	1
Ammonia, Chloride.....	43	—	—	43
Ammonia, Sulphate of.....	118	118	—	—
Ammunition.....	63	54	—	9
Anchors.....	1	1	—	—
Animal Foods, N.O.S.....	5,396	530	131	4,735
Animals Small.....	23	—	—	23
Asbestos, Cement.....	3	—	—	3
Asbestos, Crude.....	603	595	—	8
Asbestos, Fibre.....	434	427	—	7
Asbestos, Mfrs of.....	75	55	1	19
Asbestos, Roofing.....	243	243	—	—
Asbestos, Shingles.....	28	—	—	28
Asbestos, N.O.S.....	1,776	1,759	—	17
Asphalt.....	162	—	—	162
Asphalt, Shingles.....	153	—	—	153
Automobiles & parts.....	58,698	18,488	38,441	1,769
Axles.....	2	2	—	—
Babbitt Metal.....	20	10	1	9
Baby Carriages.....	7	3	—	4
Bags & Bagging (jute).....	1,006	16	2	988
Baking Powder.....	72	4	49	19
Barrels & Drums (empty).....	1,981	207	168	1,606
Basketware.....	2	1	—	1
Batteries.....	616	267	161	188
Battery Plates.....	19	—	—	19
Beans, common.....	145	100	30	15
Beans, N.O.S.....	3	3	—	—

COMMODITY	Total Tons	Carried Before Export		
		Rail	Vessel	Other
Black Sheets.....	4	—	2	2
Beds & Bedding.....	1,249	115	13	1,121
Beer.....	184	18	18	148
Beeswax.....	14	9	—	5
Belting.....	38	26	8	4
Bicycles & Parts.....	5	1	4	—
Bird Cages.....	4	—	4	—
Bicycles, Motor.-.....	1	—	—	1
Biscuits.....	36	24	—	12
Blood, Dried.....	216	—	—	216
Boats, Motor.....	2	—	—	2
Boats, N.O.S.....	27	27	—	—
Boilers & Parts.....	108	44	—	64
Bolts & Nuts.....	627	11	—	616
Bone Ash.....	154	—	—	154
Bone Meal.....	7	—	—	7
Books.....	57	26	14	17
Boots & Shoes.....	56	19	2	35
Bottle Capsules, (metal).....	68	27	6	35
Bottles, Empty.....	149	28	—	121
Bottling Materials.....	31	1	25	5
Bottles, Thermos.....	8	—	—	8
Boxes, Empty.....	84	42	—	42
Bran.....	10,231	3,397	907	5,927
Brass, Mfrs of.....	360	190	9	161
Brass, Scrap.....	2,400	489	572	1,339
Brass Wire.....	9	9	—	—
Bread.....	9	—	—	9
Brick, Fire.....	58	58	—	—
Bronze, Mfrs of.....	27	16	5	6
Bronze Powder.....	221	23	—	198
Bronze Wire.....	5	3	—	2
Brooms & Brushes.....	181	69	52	60
Bullion.....	158	26	—	132
Butter.....	2,229	1,267	—	962
Buttermilk.....	55	45	—	10
Buttons.....	12	9	—	3
Cable.....	19	4	—	15
Calcium, Chloride.....	1	—	—	1
Candles.....	9	—	1	8
Canned Goods, N.O.S.....	4,795	326	4,099	370
Captax.....	63	57	6	—





AN INTERESTING VIEW OF THE STEEL WORK ON THE MAIN SPAN OF THE MONTREAL HARBOUR  
BRIDGE.

(Photo: Associated Screen News).

COMMODITY	Total Tons	Carried Before Export		
		Rail	Vessel	Other
Carbide, N.O.S.....	530	386	—	144
Carboys, Empty.....	1	—	1	—
Cardboard.....	93	41	6	46
Carpets & Matting.....	4	1	1	2
Casings, Sausage.....	1,884	940	629	315
Castings.....	27	7	—	20
Catsup.....	10,093	290	9,774	29
Cattle.....	19,311	19,146	—	165
Cattle, Hoofs.....	138	30	47	61
Celluloid, Mfrs of.....	3	1	1	1
Celluloid, Sheets.....	4	1	3	—
Cement, Building.....	9,325	22	—	9,303
Cement, N.O.S.....	233	30	7	196
Cereals.....	24,233	23,987	61	185
Chains.....	234	222	—	12
Charcoal.....	30	—	—	30
Charcoal, Animal.....	34	—	—	34
Cheese.....	34,441	1,681	1,042	31,718
Chemicals, N.O.S.....	147	55	9	83
Chinaware.....	9	2	7	—
Church Ornaments.....	5	—	—	5
Cider.....	5	—	1	4
Clay, Fire.....	16	—	—	16
Clay, N.O.S.....	7	—	—	7
Cleansers.....	260	86	58	116
Clocks.....	24	23	—	1
Clothes Pins.....	203	—	—	203
Coal, Anthracite.....	117	—	—	117
Coal, Bituminous.....	23	—	—	23
Cobalt Ore.....	64	64	—	—
Cobalt Oxide.....	65	65	—	—
Cocoa.....	102	—	99	3
Cocoa Beans.....	9	9	—	—
Coffee.....	17	—	—	17
Coke.....	78	46	—	32
Confectionery.....	304	163	88	53
Copper, Bars.....	19,722	19,722	—	—
Copper, Cakes.....	748	748	—	—
Copper, Cathodes.....	8,583	8,303	—	280
Copper, Ingots.....	1,183	1,183	—	—
Copper, Mfrs of.....	61	8	48	5
Copper, Matte.....	23,739	23,739	—	—
Copper, Scrap.....	1,148	63	462	623

COMMODITY	Total Tons	Carried Before Export		
		Rail	Vessel	Other
Copper, Wire.....	1,374	831	12	531
Cork, Mfrs of.....	39	—	—	39
Corn Starch.....	155	155	—	—
Cotton, Raw.....	15	—	1	14
Cotton, Waste.....	94	—	68	26
Cream Separators.....	26	12	14	—
Crucibles.....	7	7	—	—
Cutlery.....	3	—	1	2
Cyanide.....	981	981	—	—
Conduits, Fibre.....	16	16	—	—
Degras.....	1	1	—	—
Disinfectants.....	6	2	—	4
Doors.....	1,026	527	—	499
Dowels.....	256	147	—	109
Drugs & Medicines.....	388	158	93	137
Druggist's Sundries.....	700	496	32	172
Dry Colors, N.O.S.....	251	18	218	15
Dry Goods.....	3,357	2,841	17	499
Dyes.....	236	2	24	210
Earthenware.....	26	1	8	17
Earth Refining.....	1	—	—	1
Effects, Settlers.....	1,779	880	116	783
Eggs, in shell.....	3,663	3,089	—	574
Eggs, N.O.S.....	2	1	—	1
Electrical Apparatus.....	1,933	1,836	7	90
Electrodes.....	1,142	1,141	1	—
Emery Cloth.....	7	7	—	—
Emery Powder.....	5	1	2	2
Enamelware.....	10	—	—	10
Engines.....	78	60	—	18
Explosives, N.O.S.....	4	—	—	4
Extracts, Various.....	29	2	17	10
Feathers.....	1	—	—	1
Feldspar.....	24	24	—	—
Felt, N.O.S.....	446	411	—	35
Felt, Roofing.....	247	217	—	—
Fertilizers, N.O.S.....	36	5	—	31
Fibres.....	12	1	—	11
Fibreboard.....	1,832	1,726	68	38
Fire Arms.....	2	1	—	1

COMMODITY	Total Tons	Carried Before Export		
		Rail	Vessel	Other
Fish Cured.....	1,860	62	13	1, 85
Fish Fresh or Frozen.....	1,338	1,313	—	25
Fish in Tins.....	826	672	—	154
Fishing Apparatus.....	2	1	1	—
Flooring, Hardwood.....	3,259	2,773	34	452
Flour, Buckwheat.....	2	2	—	—
Flour, Corn.....	333	296	37	—
Flour, Tapioca.....	1	—	—	1
Flour, Wheat.....	262,499	101,222	67,123	94,154
Flour, Wood.....	202	200	—	2
Flour, N.O.S.....	13	1	—	12
Forgings.....	1	1	—	—
Fruit, Dried.....	278	28	63	187
Fruit, in Brine.....	1	1	—	—
Fruit, in Tins.....	5,111	907	4,129	75
Fruit Jars.....	623	621	—	2
Fruit Juices.....	256	223	29	4
Fruit Pectin.....	1,000	1,000	—	—
Fruit, Pulp.....	20	18	1	1
Fruit, Raw.....	71,486	70,158	598	730
Furniture.....	1,491	1,146	37	308
Furs.....	446	202	—	244
Galvanized Sheets.....	15	—	6	9
Garden Bulbs.....	1,689	1,687	—	2
Gas Black.....	1,294	1,222	—	72
Gas Cylinders.....	46	—	—	46
Gasoline in Pkgs.....	390	—	—	390
Ginger.....	2	2	—	—
Glass Jars, N.O.S.....	331	331	—	—
Glass Sheets.....	40	37	—	3
Glassware.....	1,039	1,017	8	14
Glue.....	42	8	34	—
Glucose.....	151	—	151	—
Glycerine.....	1	—	—	1
Grain, Barley in bags.....	3	1	—	2
Grain, Buckwheat in bags.....	500	—	—	500
Grain, Corn in bags.....	266	2	2	262
Grain, Oats in bags.....	8,660	3,894	5	4,761
Grain, Rye in bags.....	8	—	—	8
Grain, Wheat in bags.....	1,908	17	1	1,890
Grain, in bags N.O.S.....	1	—	—	1
Grain, in Bulk Barley.....	16,022	—	16,022	—

COMMODITY	Total Tons	Carried Before Export		
		Rail	Vessel	Other
Grain, in Bulk Buckwheat.....	5,622	—	5,622	—
Grain, in Bulk Corn.....	720	—	720	—
Grain, in Bulk Flax.....	1,119	—	1,119	—
Grain, in Bulk Oats.....	14,924	—	14,924	—
Grain, in Bulk Rye.....	3,358	—	3,358	—
Grain, in Bulk Wheat.....	1,608,517	—	1,608,517	—
Graphite.....	60	55	2	3
Grease.....	674	289	377	8
Grindstones.....	57	57	—	—
Grinding Wheels.....	27	26	1	—
Groceries, N.O.S.....	80	10	44	26
Gums, Various.....	3	1	2	—
Gypsum Lath.....	1,714	1,714	—	—
Hair.....	1,113	442	631	40
Handles, wooden.....	507	425	46	36
Hardware, N.O.S.....	457	369	36	52
Hatters' Fur.....	37	—	—	37
Hay.....	17,229	274	1,377	15,778
Hemp.....	39	39	—	—
Hides.....	289	46	214	29
Holloware, N.O.S.....	21	8	12	1
Honey.....	976	411	446	119
Hops.....	1,206	1,199	1	6
Horses.....	69	8	—	61
Horse Shoes.....	61	—	—	61
Incubators.....	2	2	—	—
Inks.....	46	9	5	32
Instruments Musical.....	105	87	5	13
Instruments Scientific.....	31	5	23	3
Insulators.....	431	114	309	8
Iron Pig.....	1	—	—	1
Iron & Steel Bars.....	191	20	—	171
Iron & Steel Balls.....	27	11	15	1
Iron & Steel Hoops.....	21	—	18	3
Iron & Steel Mfrs of.....	512	250	51	211
Iron & Steel Piping.....	2,206	808	228	1,170
Iron & Steel Pipe Fittings.....	112	63	—	49
Iron & Steel Scrap.....	21,074	13,883	—	7,191
Iron & Steel Sheets.....	18	11	—	7
Iron & Steel Structural.....	101	5	—	96

COMMODITY	Total Tons	Carried Before Export		
		Rail	Vessel	Other
Jewellery.....	4	4	—	—
Lamp Black.....	39	39	—	—
Lamps & Lanterns.....	163	152	—	11
Lard.....	57,710	47,412	10,268	30
Last Blocks.....	52	30	—	22
Lath.....	291	291	—	—
Lawn Mowers.....	58	36	—	22
Lead, Acetate of.....	7	—	—	7
Lead, Mfrs of.....	72	8	—	64
Lead Scrap.....	57	—	57	—
Lead, Sheet.....	3	—	—	3
Leather in Bales.....	97	87	—	10
Leather, Mfrs of.....	1,752	1,297	1	454
Leaves, Dried.....	1	—	1	—
Lime.....	123	113	—	10
Lime, Acetate of.....	210	198	—	12
Lime, Chloride of.....	97	—	—	97
Lime, Phosphate of.....	46	46	—	—
Linoleum.....	9	8	1	—
Liquors, Intoxicating.....	11,275	2,087	430	8,758
Lobster, in Tins.....	1,225	1,200	—	25
Macaroni.....	1,842	141	57	1,644
Machinery, N.O.S.....	1,639	1,314	198	127
Machines, Sewing.....	736	717	1	18
Magnesite.....	1,843	1,843	—	—
Malt.....	1,185	1,180	—	5
Maple Sugar.....	12	9	—	3
Maple Strips.....	681	357	—	324
Maple Syrup.....	44	43	—	1
Marble, Mfrs of.....	1	1	—	—
Match Blocks.....	1,493	1,485	—	8
Match Splints.....	1,499	1,499	—	—
Matches.....	6	5	—	1
Meal Alfalfa.....	4,738	4,284	120	334
Meal, Barley.....	3	2	—	1
Meal, Corn.....	183	23	3	157
Meal, Oat.....	741	712	18	11
Meal, Oilcake.....	5,462	192	—	5,270
Meal, Rice.....	113	—	—	113
Meal, N.O.S.....	175	112	30	33
Meats, Cured.....	52,170	45,970	2,041	4,159



COMMODITY	Total Tons	Carried Before Export		
		Rail	Vessel	Other
Meat Extract.....	2	1	—	1
Meats, Fresh or Frozen.....	5,699	4,129	—	1,570
Meats, in Tins.....	3,533	3,083	370	80
Metals, N.O.S.....	84	66	5	13
Meters.....	26	13	8	5
Mica.....	19	12	—	7
Middlings.....	990	588	—	402
Milk Powder.....	1,245	997	219	29
Milk, Skimmed.....	252	229	—	23
Milk, in Tins.....	5,618	4,829	767	22
Millinery.....	29	6	1	22
Mineral Water.....	40	1	—	39
Molasses.....	22	—	—	22
Monel Metal.....	61	54	—	7
Mules.....	161	161	—	—
Mushrooms.....	1	1	—	—
Mustard.....	5	—	—	5
Nails.....	1,509	55	1	1,453
Nickel Cathodes.....	2,812	2,812	—	—
Nickel Ingots & Slabs.....	138	137	1	—
Nickel Matte.....	497	497	—	—
Nickel Oxide.....	702	702	—	—
Nickel Shot.....	33	33	—	—
Notions.....	50	33	—	17
Nuts, Edible, N.O.S.....	15	—	—	15
Oakum.....	1	—	—	1
Oats, Rolled in bags.....	1,611	615	459	537
Oats, Rolled N.O.S.....	249	193	—	56
Oilcloth.....	139	—	—	139
Oil, Coal.....	71	—	—	71
Oil, Cod Liver.....	6	—	5	1
Oil, Crude Petroleum Bulk.....	13,432	—	—	13,432
Oil, Essential.....	1	1	—	—
Oil, Fuel.....	272	—	—	272
Oil, Lard.....	129	129	—	—
Oil, Linseed.....	41	—	—	41
Oil, Lubricating.....	681	460	154	67
Oil, Olco.....	680	643	37	—
Oil, Olive.....	20	—	18	2
Oil, Various N.O.S.....	143	50	31	62
Oilmen's, stores, N.O.S.....	18	1	16	1

COMMODITY	Total Tons	Carried Before Export		
		Rail	Vessel	Other
Olives .....	1	—	1	—
Oyster Shells.....	5	—	—	5
Oxides, N.O.S.....	50	49	1	—
Paints.....	170	17	34	119
Paper Board.....	321	262	41	18
Paper, Blotting.....	9	6	—	3
Paper, Printing.....	32,117	30,860	1	1,256
Paper, Roofing.....	565	68	1	496
Paper, Stock.....	13	—	—	13
Paper, Wall.....	464	129	184	151
Paper, Wrapping.....	851	665	1	185
Paper, Various, N.O.S.....	755	461	78	216
Paste.....	133	—	—	133
Peas.....	46	36	—	10
Peas, Split.....	35	24	—	11
Peat.....	1	—	—	1
Peels.....	2	1	1	—
Perfumery.....	1	—	—	1
Phosphorus.....	1,807	1,360	347	100
Photo Supplies.....	747	86	658	3
Pickles.....	38	1	25	12
Pictures & Frames.....	33	8	20	5
Pipes, Tobacco, N.O.S.....	1	—	—	1
Pitch.....	6,483	—	—	6,483
Plaster, N.O.S.....	226	184	—	42
Plaster Board.....	4,709	4,668	—	41
Polishes.....	34	17	4	13
Pollard.....	34	6	—	28
Potatoes.....	110	—	—	110
Poultry.....	78	59	—	19
Preserves, N.O.S.....	53	3	15	35
Printed Matter.....	546	407	77	62
Propellers.....	2	2	—	—
Pulleys & Blocks.....	43	38	—	5
Pulpboard, N.O.S.....	8,339	7,176	229	934
Pumice Stone.....	3	3	—	—
Pumps.....	63	58	—	5
Putty.....	24	—	—	24
Radiators.....	69	3	3	63
Radio & Parts.....	437	55	—	382
Rags.....	364	14	91	259

COMMODITY	Total Tons	Carried Before Export		
		Rail	Vessel	Other
Railways Equipment.....	1,637	(Royal Scot train) 1,637		
Rattans.....	1	—	—	1
Razors & Parts.....	77	1	—	76
Refrigerators.....	103	44	—	59
Resin.....	26	—	23	3
Rice.....	651	—	1	650
Rice, Unhulled.....	57	—	—	57
Roots, N.O.S.....	126	93	—	33
Rope.....	2	—	—	2
Rubber, Mfrs of.....	18,747	14,027	2,734	1,986
Rubber Scrap.....	122	33	30	59
Salt, Coarse.....	17	—	—	17
Salt, Fine.....	457	410	4	43
Salt, Epsom.....	7	—	—	7
Salt, Various, N.O.S.....	3	3	—	—
Sand, Carborundum.....	414	414	—	—
Sand, Fire.....	6	—	6	—
Sand, N.O.S.....	74	37	35	2
Sauces.....	1	—	—	1
Sausage & Sausage Meat.....	213	209	1	3
Scales.....	6	5	1	—
Screenings.....	60	—	60	—
Screenings, Grain.....	20	20	—	—
Seed, Grass.....	2,010	1,527	466	17
Seed, Garden.....	5	—	5	—
Seed, N.O.S.....	636	333	283	20
Shawinigan Black.....	92	—	92	—
Shellac.....	1	—	—	1
Shingles, N.O.S.....	1	—	1	—
Ship Stores.....	8,835	—	48	8,787
Shoe Shanks.....	172	—	143	29
Shorts.....	3,828	522	224	3,082
Shovels.....	151	127	—	24
Shrubs.....	16	—	—	16
Shooks.....	2,677	2,533	—	144
Silk Waste.....	4	—	—	4
Silverware.....	4	1	—	3
Skewers.....	8	6	—	2
Slate.....	4	—	—	4
Snaths.....	54	53	—	1
Soap, Common.....	51	—	14	37
Soap, Liquid.....	6	1	5	—

COMMODITY	Total Tons	Carried Before Export		
		Rail	Vessel	Other
Soap, Powder.....	9	4	3	2
Soapstone.....	228	225	—	3
Soap, Toilet.....	2,893	187	2,681	25
Soap, N.O.S.....	11	—	1	10
Soda, Bicarbonate.....	25	—	2	23
Soda, Bichromate.....	20	—	—	20
Soda, Carbonate.....	13	—	—	13
Soda, Caustic.....	25	—	23	2
Soda, Chlorate of.....	119	119	—	—
Soda, Chloride of.....	30	30	—	—
Soda, Nitrate of.....	2	—	—	2
Soda, Phosphate of.....	2	—	2	—
Soda, Silicate of.....	14	—	—	14
Soda, Sulphite of.....	1	—	—	1
Soda, Various, N.O.S.....	6	6	—	—
Soup in Tins.....	6,039	50	5,922	67
Spelter.....	12,216	12,216	—	—
Spices, N.O.S.....	2	—	1	1
Spoolwood.....	6	—	—	6
Sponges.....	3	—	—	3
Sporting Goods.....	212	39	78	95
Staples, Metal.....	41	14	—	27
Starch, N.O.S.....	186	181	—	5
Stationery.....	144	53	20	71
Statuary.....	4	—	—	4
Stearine.....	160	124	36	—
Steel Billets & Blooms.....	284	284	—	—
Steel Tyres.....	11	—	—	11
Stoves.....	1,940	1,731	—	209
Straw.....	1	—	—	1
Strawboard.....	1,289	1,289	—	—
Sugar, Refined.....	4,358	61	—	4,297
Sulphur.....	50	—	41	9
Sundries.....	805	67	8	730
Super phosphates.....	1	—	—	1
Sweepings, Jewellers.....	42	35	4	3
Syrup, Corn.....	1,426	—	1,412	14
Syrup, N.O.S.....	19	4	5	10
Talc.....	67	67	—	—
Tallow.....	25	1	23	1
Tapioca.....	1	—	—	1
Tar.....	8,747	1	—	8,746

COMMODITY	Total Tons	Carried Before Export		
		Rail	Vessel	Other
Tarvia.....	435	112	—	323
Tea.....	91	2	1	88
Thread.....	2	—	—	2
Ties, Railway.....	29	—	29	—
Tiles.....	12	12	—	—
Tin, Dross.....	189	97	64	28
Tin, Ingots.....	2	—	—	2
Tin, Plates.....	13	—	—	13
Tin, Scrap.....	354	159	—	195
Tinware.....	28	6	2	20
Tobacco, Raw Leaf.....	2,190	2,050	—	140
Tobacco, Mfrs of.....	56	3	1	52
Tobacconists' Sundries.....	25	5	16	4
Toilet Preparations.....	487	334	83	70
Tomato Juice.....	2,547	42	2,493	12
Tomato Paste.....	12	—	—	12
Toys.....	654	516	126	12
Tools, N.O.S.....	734	687	6	41
Tractors & Parts.....	170	1	162	7
Trucks.....	1,345	553	746	46
Trunks.....	14	3	4	7
Twine Binder.....	3,757	1,083	2,672	2
Twine, N.O.S.....	91	73	12	6
Typewriters.....	108	76	4	28
Turpentine.....	12	2	3	7
Tubes, Collapsible.....	11	11	—	—
Vacuum Cleaners.....	336	38	290	8
Valises.....	1	1	—	—
Valves.....	315	163	1	151
Varnish.....	54	19	9	26
Vegetable Fat.....	1,195	67	1,128	—
Vegetables, in Tins.....	1,935	1,185	—	750
Vegetables Raw, N.O.S.....	506	146	240	120
Vencer.....	1,297	1,297	—	—
Vinegar.....	40	—	2	38
Wadding.....	27	1	26	—
Wallboard.....	3,633	3,268	281	84
Washing Machines.....	1,206	1,167	—	39
Wax.....	165	155	7	3
Wheat Germs.....	672	280	336	56
Wheelbarrows.....	2	2	—	—

COMMODITY	Total Tons	Carried Before Export		
		Rail	Vessel	Other
Wheels & Parts.....	133	132	1	—
Whiting.....	1	—	—	1
Window Frames.....	1	1	—	—
Window Rollers.....	250	249	1	—
Window Shades.....	67	56	2	9
Wines.....	64	5	32	27
Wire, Barbed.....	746	660	—	86
Wire, Cloth.....	251	24	148	79
Wire, Fencing.....	230	67	129	34
Wire, Mfrs of.....	52	41	2	9
Wire, Netting.....	29	—	—	29
Wire, Rods.....	34,630	34,442	—	188
Wire, Rope.....	31	—	—	31
Wire, Steel in Coils.....	1,339	630	3	706
Woodenware, N.O.S.....	996	891	21	84
Woodpulp.....	34,105	34,046	51	8
Wood, Wool.....	18	4	—	14
Wool.....	906	903	3	—
Wool, Greasy.....	86	86	—	—
Wool, Waste.....	72	67	5	—
Yarn.....	549	547	—	2
Yeast.....	63	—	60	3
Zinc Dross.....	680	49	—	631
Zinc Oxide.....	1	—	—	1
Zinc Sheets.....	110	—	109	1
Zinc Various, N.O.S.....	58	—	5	53
Grand Totals, Tons.....	2,781,951	667,217	1,826,854	287,880
Lumber exported.....	20,922			
	2,802,873			



## DOMESTIC

GOODS	Rail		Vessel			Total
	In	Out	In	Out	Other	
Acid, Acetic.....	—	—	—	2	—	2
Acid, Sulphuric.....	58	—	—	—	—	58
Acid, Tartaric.....	25	—	—	—	—	25
Acid, Various .....	382	—	—	14	—	396
Acroplanes & Parts.....	—	7	—	—	—	7
Agricultural Implements..	—	—	—	—	25	25
Alcohol, Industrial.....	15	547	—	188	—	750
Alum.....	—	—	—	2	—	2
Aluminum.....	1	—	1	10	—	12
Aluminum Foil.....	1	—	—	1	—	2
Ammonia, N.O.S.....	—	—	—	1	—	1
Ammonia, Sulphate of....	20	—	6	—	—	26
Ammunition.....	2	—	—	31	—	33
Animal Food, N.O.S.....	111	60	88	54	—	313
Asbestos, Cement.....	30	—	—	7	—	37
Asbestos, Fibre.....	61	—	—	30	—	91
Asbestos, Gravel.....	152	—	—	—	—	152
Asbestos, Mfrs. of.....	13	21	—	2	—	36
Asbestos, N.O.S.....	91	—	—	96	—	187
Asbestos, Shingles.....	—	—	—	7	—	7
Asphalt.....	—	—	50	37	128	215
Asphalt, Shingles.....	—	—	—	23	—	23
Automobiles & Parts.....	6	41	15	101	—	163
Axles.....	—	—	—	1	—	1
Bags & Bagging, Jute....	69	455	46	255	—	825
Barrels & Drums, Empty..	107	35	49	22	—	213
Basket Ware.....	55	—	—	1	—	56
Batteries.....	—	—	—	1	—	1
Battery Plates.....	—	—	—	1	—	1
Beans, Common.....	—	—	4	166	—	170
Beans, N.O.S.....	—	—	—	9	—	9
Bedding.....	37	12	—	21	—	70
Beer.....	—	—	—	13	—	13
Belting.....	—	—	—	35	—	35
Benzine.....	—	—	—	1	—	1
Bicycles & Parts.....	26	22	—	1	—	49
Bicycles Motor .....	7	—	—	—	—	7
Biscuits.....	2	—	1	11	—	14
Boats.....	—	8	—	—	—	8
Boilers & Parts.....	—	47	—	66	—	113

GOODS	Rail		Vessel		Other	Total
	In	Out	In	Out		
Bolts & Nuts.....	—	83	3	228	—	314
Books.....	31	—	1	7	—	39
Boots & Shoes.....	—	7	3	67	—	77
Bottle Capsules.....	1	—	—	17	—	18
Bottles, Empty.....	134	1	3	687	35	860
Boxes, Empty.....	85	14	2	55	—	156
Bran.....	311	26	290	89	—	716
Brass, Mfrs of.....	1	—	1	11	—	13
Brass, Scrap.....	—	46	1	—	—	47
Brass, Wire.....	—	—	—	—	1	1
Brewers Sprouts.....	—	—	—	15	—	15
Brick, Fire.....	39	52	—	14	—	105
Brick, N.O.S.....	27	—	—	9	—	36
Bronze, Mfrs. of.....	—	—	—	3	—	3
Bronze, Powder.....	—	—	—	2	—	2
Brooms.....	1	7	2	4	—	14
Brushes.....	—	8	—	3	—	11
Butter.....	—	—	2	6	—	8
Cable.....	11	—	—	22	—	33
Calcium Chloride.....	—	—	—	95	—	95
Candles.....	—	1	1	1	—	3
Canned Goods.....	108	41	503	1,194	526	2,372
Carbide, N. O.S.....	15	4	—	719	—	738
Carbon, Black.....	—	—	—	2	—	2
Cardboard.....	—	—	—	3	—	3
Carpets & Matting.....	—	—	—	34	—	34
Casings, Sausage.....	7	3	6	33	—	49
Catsup.....	11	69	—	39	—	119
Cattle.....	1,513	—	—	—	—	1,513
Cement, Bulding.....	—	1,105	—	39,394	1,381	41,880
Cement, N.O.S.....	1	—	—	20	375	396
Cereal, N.O.S.....	312	9	—	—	—	321
Chains.....	—	4	3	29	—	36
Charcoal.....	70	—	—	3	—	73
Cheese.....	78	1,729	—	57	—	1,864
Chemicals, N.O.S.....	44	34	5	51	—	134
Chicory.....	—	—	—	6	—	6
Chinaware.....	12	—	9	—	—	21
Cider.....	—	—	1	—	—	1
Clay, China.....	—	—	—	2	—	2
Clay, Fire.....	34	—	1	23	—	58
Clay, N.O.S.....	30	—	1	1	—	32

GOODS	Rail		Vessel			Total
	In	Out	In	Out	Other	
Cleansers.....	116	—	1	299	63	479
Clothes Pins.....	—	—	—	12	—	12
Coal, American Bitum....	371	—	—	—	—	371
Coal, Canadian Bitum....	45	—	1,404,702	—	—	1,404,747
Coal, American Anthr....	1,252	—	—	—	—	1,252
Coal, Scotch Anthracite..	19,748	—	—	—	—	19,748
Coal, Welsh Anthracite...	29,476	—	—	—	—	29,476
Cocoa, Incl. Powder.....	—	—	—	73	—	73
Cocoa, Beans.....	—	—	—	187	—	187
Coffec.....	—	1	—	49	—	50
Coffee Essence.....	—	—	—	2	—	2
Coke, Canadian.....	1,618	—	—	—	—	1,618
Confectionery.....	—	—	11	59	—	70
Copper Bars.....	—	—	—	3	—	3
Copper Ingots.....	—	178	1	—	—	179
Copper Mfrs of.....	—	—	—	21	—	21
Copper Scrap.....	—	—	9	—	—	9
Copper Slabs & Sheets...	—	—	—	7	—	7
Copper Wire.....	—	—	—	46	—	46
Cork, Mfrs of.....	—	—	—	2	—	2
Cotton, Absorbent.....	—	—	—	1	—	1
Cotton Raw.....	—	—	—	2	—	2
Cottonwaste.....	9	—	—	38	—	47
Creosote.....	—	—	—	1	—	1
Crockery.....	59	—	2	1	—	62
Cutlery.....	28	—	—	1	—	29
Cyanide.....	—	—	—	44	—	44
Disinfectants.....	—	—	—	34	—	34
Drugs & Medicines.....	—	—	13	93	—	106
Druggists Sundries.....	—	—	—	22	—	22
Dry Colours.....	—	—	6	365	—	371
Dry Goods.....	25	4	1	459	3	492
Drums, Empty, (Steel)...	51	10	5	—	—	66
Earthenware.....	1	—	3	45	—	49
Earth, Refining.....	476	51	—	—	—	527
Effects, Settlers.....	—	1	22	5	—	28
Eggs, in Shell.....	53	7	1	—	—	61
Eggs, N. O. S.....	28	—	3	—	—	31
Electrical Apparatus.....	—	25	13	19	—	57
Electrodes.....	10	—	—	1	—	11
Enamelware.....	—	66	11	34	—	111

GOODS	Rail		Vessel			Total
	In	Out	In	Out	Other	
Engines.....	21	—	4	1	—	26
Extracts, Various.....	—	15	—	5	—	20
Feed, Oat.....	—	—	—	3	—	3
Feed, Cattle & Poultry...	—	—	—	3	—	3
Felt, N.O.S.....	—	—	4	24	—	28
Felt, Roofing.....	—	—	—	1	—	1
Fertilizers.....	239	—	—	—	—	239
Filtermass.....	—	—	—	1	—	1
Fish, Cured.....	—	—	136	2	—	138
Fish, Fresh or Frozen....	91	—	14	2	—	107
Fish, in Tins.....	24	—	7,172	436	—	7,632
Flax, Seed.....	1,882	1,119	—	67	—	3,068
Flooring, Hardwood.....	—	15	—	—	—	15
Flour, Corn.....	—	71	—	—	—	71
Flour, Wheat.....	1,155	58	19,473	1,625	42	22,353
Fishing Apparatus.....	—	—	4,981	15	—	4,996
Forgings.....	3	—	—	7	—	10
Fruit, in Brine.....	—	—	—	5	—	5
Fruit, Dried.....	85	15	5	56	—	161
Fruit, Green.....	1,147	504	78	403	—	2,132
Fruit, in Tins.....	1	75	233	279	—	588
Fruit, Juice.....	—	—	—	1	—	1
Fruit, Pulp.....	—	—	—	14	—	14
Furniture.....	24	3	4	297	—	328
Furs.....	—	—	—	34	—	34
Galvanized Sheets.....	145	231	—	49	—	425
Garden Bulbs.....	5	—	—	—	—	5
Gasoline, in Bulk.....	508	35,306	44,555	336,594	—	416,963
Gasoline, in Cylinders....	193	—	—	—	—	193
Gear, Contractors.....	268	166	—	—	—	434
Gelatine.....	—	—	—	8	—	8
Ginger.....	—	95	3	6	—	104
Glass Jars.....	3	49	14	37	—	103
Glass Sheets.....	17	—	1	5	—	23
Glass Ware.....	40	93	2	42	—	177
Glue.....	3	—	13	31	—	47
Glucose.....	20	—	—	206	—	226
Glycerine.....	—	—	—	7	—	7
Grain, in Bags, N.O.S.....	—	—	103	—	—	103
Grain, in Bags, Barley....	25	—	112	12	—	149
Grain, in Bags, Oats.....	172	50	50	27	—	299

GOODS	Rail		Vessel			Total
	In	Out	In	Out	Other	
Grain, in Bags, Wheat....	76	—	—	—	—	76
Grain, for Local Delivery.	13,409	—	225,563	—	—	238,972
Granite Blocks.....	—	—	—	1	—	1
Grease.....	21	—	—	10	—	31
Grind Stones.....	—	—	—	3	—	3
Groceries, N.O.S.....	190	49	12	123	—	374
Gums, Various.....	—	—	28	4	—	32
Gypsum.....	—	—	17,569	—	—	17,569
Guano.....	20	—	—	—	—	20
Hair.....	—	—	—	1	—	1
Handles, Wooden.....	276	47	4	36	—	363
Hardware, N.O.S.....	365	21	7	445	8	846
Hatters.....	—	—	—	7	—	7
Hay.....	—	12	—	1,085	—	1,097
Hides.....	181	—	62	—	—	243
Honey.....	14	—	—	925	—	939
Hops.....	—	—	5	24	—	29
Horse Shoes.....	—	—	5	70	—	75
Inks.....	—	—	—	64	—	64
Instruments, Musical....	—	—	2	32	—	34
Insulators.....	—	15	—	1	—	16
Iron & Steel Bars.....	283	1,604	365	1,559	41	3,852
Iron & Steel Bands.....	—	—	43	—	—	43
Iron & Steel Hoops.....	—	—	1	13	—	14
Iron & Steel Mfrs. of....	1	15	1	170	290	477
Iron & Steel Piping.....	94	—	22	960	—	1,076
Iron & Steel Pipe Fittings	—	—	1	131	—	132
Iron & Steel Scrap.....	2,208	552	540	—	—	3,300
Iron & Steel Sheets.....	1,310	1,462	205	338	—	3,315
Iron & Steel Structural...	1,154	664	3	—	—	1,821
Iron, Ore.....	—	—	—	9	—	9
Jewellery.....	—	—	1	—	—	1
Jute, Mfrs. of.....	81	—	—	—	—	81
Lamps & Lanterns.....	—	—	1	7	—	8
Lard.....	19	—	—	47	—	66
Lead, Mfrs. of.....	7	9	2	200	—	218
Lead, Scrap.....	—	—	4	—	—	4
Lead, Sheet.....	—	—	—	13	—	13
Leather, in Bales.....	—	12	—	9	—	21

GOODS	Rail		Vessel			Total
	In	Out	In	Out	Other	
Leather, Mfrs of.....	—	—	1	42	—	43
Lime, Acetate of.....	—	—	—	1	—	1
Lime, N.O.S.....	235	—	—	3	—	238
Lime, Phosphate of.....	—	—	—	7	—	7
Linoleum.....	—	—	—	64	—	64
Liquors, Intoxicating....	—	—	—	116	—	116
Litharge.....	—	—	—	12	—	12
Lobster, in Tins.....	27	—	—	15	—	42
Magnesium, Carbonate of	210	—	—	—	—	210
Macaroni & Spagetti....	1	3	—	77	—	81
Machinery, N.O.S.....	521	310	38	78	—	947
Machines, Sewing.....	—	—	—	10	—	10
Malt, Extract.....	—	—	—	1	—	1
Maple Sugar.....	—	—	—	1	—	1
Marble Blocks.....	27	—	—	—	—	27
Matches.....	13	—	—	147	—	160
Meal, Barley.....	—	—	—	4	—	4
Meal, Corn.....	25	—	—	10	—	35
Meal, Oat.....	20	—	—	—	—	20
Meal, Oilcake.....	—	190	—	1	—	191
Meal, N.O.S.....	18	192	31	21	—	262
Meats, Cured.....	125	30	—	19	—	174
Meats, Extracts.....	—	—	1	8	—	9
Meats, Fresh or Frozen...	1,403	16	2	1	—	1,422
Meats, in Tins.....	1	—	34	144	—	179
Meters.....	—	—	—	2	—	2
Middlings.....	27	1	2,340	220	—	2,588
Milk, in Tins.....	445	—	—	6	—	451
Milk, Powdered.....	—	—	—	1	—	1
Molasses.....	84	12,826	10	9,188	—	22,108
Mustard.....	—	—	1	12	—	13
Metals, N.O.S.....	—	—	2	5	—	7
Mules.....	—	—	—	3	—	3
Nails & Tacks.....	—	—	789	1,951	—	2,740
Naphthaline.....	1	—	—	2	—	3
Nuts, Edible, N.O.S.....	13	—	2	12	—	27
Oakum.....	10	—	2	2	—	14
Oats, Rolled in Bags....	390	—	1,757	43	—	2,190
Oats, Rolled, N.O.S.....	277	30	61	—	—	368
Oilcloth.....	71	2	—	77	—	150

GOODS	Rail		Vessel			Total
	In	Out	In	Out	Other	
Oil, Coal.....	—	20	27,948	4,655	—	32,623
Oil, Coconut.....	—	—	—	1	—	1
Oil, Cod Liver.....	—	—	4	2	—	6
Oil, Crude.....	1,748	16,840	—	284,522	2	303,112
Oil, Fuel.....	19	27	16,788	284,700	30	301,564
Oil, Fish.....	35	—	1	—	—	36
Oil, Linseed.....	202	302	14	45	—	563
Oil, Lubricating.....	26	6	—	48,563	70	48,665
Oil, N.O.S.....	50	267	11	67	—	395
Oil, Oleo.....	—	—	—	1	—	1
Oil, Olive.....	—	—	—	1	—	1
Olives.....	16	—	—	1	—	17
Oysters.....	—	—	1	—	—	1
Oysters, Shells.....	—	146	—	30	—	176
Oxides, N.O.S.....	—	—	—	16	—	16
Paints.....	26	14	4	257	—	301
Paper Board.....	—	—	13	110	—	123
Paper Greaseproof.....	122	—	—	—	—	122
Paper Parchment.....	—	104	—	—	—	104
Paper Printing.....	7	12	470	138	—	627
Paper Roofing.....	—	—	—	313	—	313
Paper Stock.....	—	959	—	57	—	1,016
Paper Various, N.O.S.....	525	24	91	374	1	1,015
Paper Wall.....	17	—	—	44	—	61
Paper Wrapping.....	272	14	—	86	—	372
Paste.....	—	—	—	16	—	16
Peas.....	—	5	116	4	—	125
Peas Split.....	—	—	25	—	—	25
Peels.....	—	—	6	—	—	6
Pepper.....	—	—	36	3	—	39
Peroxide.....	—	—	—	2	—	2
Photo Supplies.....	—	—	—	2	—	2
Pickles.....	30	—	—	8	—	38
Pictures & Frames.....	16	—	—	9	—	25
Pipe, Earthen Drain.....	23	23	—	1	—	47
Plaster, N.O.S.....	150	213	—	7	—	370
Plumbago.....	—	—	—	1	—	1
Polishes.....	2	—	2	44	—	48
Potatoes.....	8,269	200	166	—	—	8,635
Poultry.....	21	—	—	2	—	23
Preserves, N.O.S.....	116	—	—	19	—	135
Printed Matter.....	—	18	—	5	—	23



GOODS	Rail		Vessel			Total
	In	Out	In	Out	Other	
Pulleys & Blocks.....	—	—	—	2	—	2
Pulpboard, N.O.S.....	5	80	12	15	—	112
Pumice Stone.....	—	—	—	3	—	3
Pumps.....	—	5	1	—	—	6
Putty.....	—	—	—	18	—	18
Radiators.....	—	22	3	66	—	91
Radios, Parts.....	—	—	—	3	—	3
Rags.....	150	1,396	6	1	—	1,553
Refrigerators.....	—	—	—	1	—	1
Rice.....	6	—	835	221	—	1,062
Rice Unhulled.....	—	—	—	2	—	2
Rope.....	14	29	36	4	—	83
Rope, Scrap.....	—	11	—	—	—	11
Rubber, Mfrs of.....	31	—	2	19	—	52
Salt, Coarse.....	—	—	—	445	—	445
Salt, Fine.....	1,182	20	—	677	—	1,879
Salts, Various.....	—	—	—	14	—	14
Sand, in Bulk.....	267	—	16,722	—	168	17,157
Sausage and Sausage Meat	—	—	—	1	—	1
Sauces.....	12	—	1	28	—	41
Sawdust.....	—	—	—	17	—	17
Scales, Weighing.....	—	—	—	5	—	5
Screenings, Coal.....	—	—	50	—	—	50
Seed, N.O.S.....	72	12	—	—	—	84
Shrubs.....	8	—	—	—	—	8
Shellac.....	—	—	1	1	—	2
Shingles, N.O.S.....	30	—	30	26	—	86
Shipstores.....	53	114	—	81	—	248
Shoe Shanks.....	—	—	55	3	—	58
Shooks.....	370	29	—	25	—	424
Shorts.....	50	—	4,745	155	—	4,950
Shovels.....	—	1	—	—	—	1
Silverware.....	—	—	—	1	—	1
Skewers.....	—	—	—	1	—	1
Slate.....	—	—	—	1	—	1
Soap, Castile.....	—	—	—	1	—	1
Soap, Common.....	27	—	—	161	—	188
Soap Powder.....	149	12	—	—	—	161
Soap Liquid.....	—	—	—	2	—	2
Soap Toilet.....	97	—	1	21	—	119
Soap, N.O.S.....	—	101	—	41	—	142

GOODS	Rail		Vessel			Total
	In	Out	In	Out	Other	
Soda, Bicarbonate.....	15	166	—	67	—	248
Soda, Sal.....	65	—	—	37	—	102
Soda, Caustic.....	—	—	—	6	—	6
Soda, Phosphate of.....	25	—	—	—	—	25
Soda, Various, N.O.S.....	—	—	18	20	—	38
Soup, in Tins.....	15	—	19	216	—	250
Spices, N.O.S.....	—	—	6	1	—	7
Spoolwood.....	1,629	—	—	—	—	1,629
Sporting Goods.....	—	—	—	13	—	13
Staples, Metal.....	—	—	—	9	—	9
Starch, N.O.S.....	1	85	—	160	—	246
Stationery.....	24	—	3	159	—	186
Stearine.....	—	—	1	—	—	1
Steel, Billets & Blooms...	3,163	—	—	—	—	3,163
Steel, Dies.....	59	—	—	—	—	59
Steel, Rails.....	—	—	—	23	—	23
Steel, Rods.....	62	724	—	113	—	899
Stone.....	1,111	—	29	1,585	—	2,725
Stoves & Furnaces.....	138	1	—	34	—	173
Straw.....	23	—	—	—	—	23
Sugar of Milk.....	—	—	—	1	—	1
Sugar, Refined.....	440	7,363	13,365	31,337	—	52,505
Sulphur, Mfrs. of.....	17	—	1	1	—	19
Sundries.....	932	584	447	184	18	2,165
Syrup, Corn.....	—	—	—	6	—	6
Syrup, N.O.S.....	3	2	—	151	—	156
Tarpaulins.....	5	—	—	—	—	5
Tanners Extract.....	—	—	7	—	—	7
Tapioca.....	—	—	8	—	—	8
Tar.....	—	515	4,090	45	—	4,650
Tea.....	—	128	533	91	—	752
Tie Plates.....	—	—	45	—	—	45
Tin Plates.....	—	—	—	5	—	5
Tin Scrap.....	—	—	7	—	—	7
Tinware.....	—	—	1	21	—	22
Tobacco, Raw Leaf.....	78	—	—	1	—	79
Tobacco, Mfrs. of.....	—	95	—	6	—	101
Toilet Preparations.....	—	—	—	50	—	50
Tomato Juice.....	—	—	—	3	—	3
Tools, N.O.S.....	—	—	—	8	—	8
Toys.....	—	—	—	26	—	26
Tractors & Parts.....	171	—	—	—	—	171

GOODS	Rail		Vessel			Total
	In	Out	In	Out	Other	
Trucks.....	—	3	—	—	—	3
Trunks.....	—	—	—	11	—	11
Twines, Binder.....	12	—	—	—	—	12
Twines, N.O.S.....	—	—	—	4	—	4
Typewriters.....	—	—	1	—	—	1
Turpentine.....	—	—	—	1	—	1
Tubes, Collapsible.....	—	—	—	3	—	3
Vacuum Cleaners.....	—	—	1	—	—	1
Valves.....	—	—	23	24	—	47
Varnish.....	—	24	—	26	—	50
Vegetables, Raw.....	49	152	—	281	—	482
Vegetables, in Tins.....	126	500	71	576	—	1,273
Veneer.....	—	—	—	1	—	1
Vinegar.....	15	—	—	158	—	173
Wadding.....	—	—	—	2	—	2
Wallboard.....	6	—	20	19	—	45
Washing Machines.....	1	—	—	34	—	35
Washing Blue.....	—	—	—	57	—	57
Wax.....	—	—	—	58	—	58
Wheat Germ.....	—	—	—	2	—	2
Wheels & Parts.....	—	—	1	32	—	33
Window Frames.....	—	—	—	1	—	1
Window Shades.....	—	—	—	11	—	11
Wire, Barbed.....	—	—	8	122	—	130
Wire, Cloth.....	—	—	—	1	—	1
Wire, Fencing.....	—	—	—	30	—	30
Wire, Mfrs. of.....	—	—	15	17	—	32
Wire, Netting.....	—	—	—	5	—	5
Wire, Rods.....	—	—	19	787	—	806
Wire, Rope.....	—	—	—	4	—	4
Wire, Steel, in Coils.....	1	55	135	1,421	—	1,612
Woodenware.....	189	20	3	60	—	272
Woodpulp.....	—	—	—	40	—	40
Wool, Mfrs. of.....	14	—	22	7	—	43
Yarns.....	21	10	—	4	—	35
Yeast.....	—	—	—	1	—	1
Zinc Ingots.....	132	33	—	—	—	165
Zinc Sheets.....	1	99	33	2	—	135
Zinc Various.....	857	—	—	1	—	858
Total.....	110,852	92,353	1,069,353	3,095,244		
		1,819,505		3,181		

## MISCELLANEOUS

GOODS	Rail		Vessei		Other	Total
	In	Out	In	Out		
Bricks (Number).....	7,000	12,480	10,600	—	—	<b>30,080</b>
Firewood (Cords).....	302	—	22,020	—	—	<b>22,322</b>
Grain Doors (Cars).....	23	28	—	—	—	<b>51</b>
Lumber, Dressed (Feet).....	402,417	41,816	1,059,626	12,594	—	<b>1,516,453</b>
Lumber, Rough (Feet).....		20,549	2,283,815			<b>29,939,092</b>
	13,050,599		9,410,963		5,173,166	
Ogilvie Flour Mills (Cars).....	526	1,822	—	—	—	<b>2,348</b>
Railway Ties (Number).....	7,695	—	—	—	—	<b>7,695</b>

## Estimated tonnage of above

COMMODITY	TONS
Bricks.....	75
Firewood.....	22,322
Grain Doors.....	612
Lumber (Dressed).....	1,516
Lumber (Rough).....	29,939
Ogilvie Cars.....	93,920
Ties.....	385
	—
Total Miscellaneous.....	148,769
Domestic.....	3,095,244
	—
Total.....	3,244,013
Less Lumber Exported.....	20,922
	—
Total.....	3,223,091

**TONNAGE SUMMARY**

	Rail	Vessel	Other	Total
Domestic.....	203,205	2,888,858	3,181	3,095,244
Miscellaneous.....	108,782	34,814	5,173	148,769
Domestic Total.....	311,987	2,923,672	8,354	3,214,013
Less Lumber exported.....				20,922
				3,223,091

**Distribution After Import**

	Rail	Vessel	Other	Total
Import.....	192,253	813,329	3,533,862	4,539,444

**Carried Before Export**

	Rail	Vessel	Other	Total
Export.....	667,217	1,826,854	287,880	2,781,951
Lumber exported.....				20,922
				2,802,873

**Distribution of Tonnage**

	Rail	Vessel	Other
Domestic.....	311,987	2,923,672	8,354
Import.....	192,253	813,329	3,533,862
Export.....	667,217	1,826,854	287,880
	1,171,457	5,563,855	3,830,096

**Total Tonnage All Sources**

	Tons
Import.....	4,539,444
Export.....	2,802,873
Domestic.....	3,223,091
Grand Total.....	10,565,408

**Note:**— Of the total of 31,455 tons of lumber shown in the Miscellaneous statement, there was exported 20,922 tons, which is shown as an addition to the Export tonnage.

**STATEMENT OF COAL AND COKE IMPORTS**  
**Foreign Coal and Coke Imported by Vessel**

	tons
British anthracite.....	1,306,646
United States anthracite.....	15,003
British Bituminous.....	188,859
United States bituminous.....	39,092
Bituminous N.O.S.....	1,192
British coke.....	12,058
Total by Vessel...	<hr/> 1,562,850

	tons
Anthracite.....	1,321,649
Bituminous.....	229,143
Coke.....	12,058
	<hr/> 1,562,850

**Other Coal and Coke Receipts**

	tons
Canadian bituminous (by vessel from Nova Scotia).....	1,404,747
British anthracite (by rail from Portland and Saint John in winter season).....	49,224
United States anthracite (by rail).....	1,252
United States bituminous (by rail).....	371
Canadian coke (by rail).....	1,618
Total.....	<hr/> 1,457,212

	tons
Total Foreign (by vessel).....	1,562,850
Total Canadian.....	1,406,365
Total Foreign (by rail).....	50,847

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Grand Total..... 3,020,062

Bituminous.....	1,634,261
Anthracite.....	1,372,125
Coke.....	13,676
	<hr/> 3,020,062

## ENGINEERING DEPARTMENT

The program of new work during 1933 was restricted to the lengthening of one Industrial Wharf at Montreal East, the continuation or completion of other wharves started the preceding season, some reclaiming work at Racine Pier for railway improvement purposes, and some excavation in connection with the rebuilding of a raceway at the Wind-mill Point.

These items, together with some routine works, are described in the next few pages.

### NEW WHARVES

#### Continuation of Shore Wharf, Sections 34-36.

The concrete superstructure 31'6" in length over the timber crib, sunk last year and closing the gap between the last Sawtooth Wharf and the old Dominion Coal Company's Wharf, was completed to high level elevation during the year.

The backfilling work behind this wall was also completed and the whole area of this last Sawtooth Wharf was available and turned into an additional Coal allotment.

#### Continuation of Shore Wharf, Section 59.

The reclaiming work behind the new extension of the wharf built in 1932 was carried out during the season. Some 25,000 cubic yards of filling material were deposited and it is expected that the area between this new wharf and the shore line will be completely available early in 1934.

#### Shell Oil — LaSalle Petroleum — Section 104.

The construction of a mole between the inshore end of the Shell-LaSalle Wharf at Montreal East was started during



1933. Timber piles were driven on each side from the end of the wharf to the shore line to act as wing walls, to retain the backfilling material.

These piles were fastened together and that portion of the mole between the inshore end of the wharf and the mainland was partly completed before the end of the year.

It is expected that the mole will be completed previous to the opening of navigation of 1934.

### **McColl-Frontenac Oil Wharf — Section 99-100.**

The wharf at the disposal of the McColl-Frontenac Oil Company at Montreal East was inadequate to meet this Company's berthing requirements and they requested the Commissioners to increase the length of this wharf to cope with their inward and outward shipping business.

Three concrete cribs, each 112 feet long, were built and sunk upstream of the present wharf giving a total extension, including the interspace between each crib, of 342' 8" long.

These three cribs as well as the concrete superstructure or Quay wall were built by the Atlas Construction Co. during the season of navigation.

### **RECAPITULATION OF WHARF CONSTRUCTION**

<b>Concrete Cribs Sunk</b>	<b>No.</b>	<b>Length</b>
McColl-Frontenac Wharf.....	3	336'0"

### **Top Walls of Wharves completed to temporary low level**

	<b>Length measured on cope line</b>
McColl-Frontenac Wharf.....	342'8"

### **Top Walls of Wharves completed to high level:**

Section 36.....	31'5"
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## EXTENT OF WHARVES

The extent of the Wharves and Piers at the end of the season of 1933 is as follows:

30 feet depth, and over, at				
O. L. W.....	38,821	lin. ft. or	7.3524	miles
25 ft. to 30 ft. depth.....	14,643	do	2.7733	do
Total deep draught.....	53,464	do	10.1257	do
20 ft. depth and under.....	1,824	do	0.3454	do
Total wharfage end of 1933	55,288	do	10.4711	do
Total wharfage end of 1932	54,946	do	10.4064	do
Increase in 1933.....	342	do	0.0647	do

## SEWERS, INTAKE CHAMBERS, WATER MAINS AND RACEWAY

### Pie IX Ave. and LaSalle St. Sewers.

At the request of the City of Montreal the Pie IX Avenue and the LaSalle St. Sewers were extended into the river for a distance of 71 and 70 feet respectively.

The four foot steel pipes used for this purpose were manufactured and lowered into place over pile bents previously constructed by the Commissioners' forces under the supervision of the Municipal authorities.

### Water intake Chamber, Section 99-100.

A water intake chamber was embodied in the construction of the first of the three concrete cribs sunk this year for the use of the McColl-Frontenac Oil Company at Montreal East.

The present open intake pipe of this Company will be re-arranged and connected with this new Chamber and will serve their plant with water for industrial purposes.

### **Water intake main — Section 104.**

A 24" C.I. Main from the water intake chamber provided at the inshore end of the Shell-LaSalle Wharf at Montreal East for the Canadian Copper Refiners Co. was laid and connected with their original intake pipe.

### **Ogilvie Raceway.**

Work on the reconstruction of that portion of the Ogilvie Raceway from the Harbour Boundary across to the Windmill Point Basin was started during the season of navigation.

Preliminary work in connection with this project included a complete submarine survey as well as the dismantling of part of the conveyor gallery erected directly over this flume along the Windmill Point Wharf which was in a threatening condition.

The length of the proposed reconstruction is approximately 100 feet and the excavation was carried out for a distance of 75 feet.

Four steel pipes 5'8" inside diameter are to replace the old wooden flumes over the proposed reconstruction, and the fabrication of these pipes was started in 1933.

## **PAVING**

No new lanes of traffic were paved during the year but some repairs were carried out along the water front during the season.

## **RAILWAY CONSTRUCTION**

### **Sections 34-35.**

A new track 532 ft. in length was laid parallel to the cope track along part of these sections to accommodate the Century Coal Co.

**Sections 35-36.**

A new cope track 500 feet in length was laid along the last completed sawtooth wharf to be used as an industrial siding by the Reading Coal Company.

**Sections 61-62.**

The Lane Coal & Shipping Co. who lease and occupy the Racine Pier as a coal dock erected a new coal handling plant which necessitated the re-arrangement of the railway terminal at these sections.

For this purpose a pile and timber trestle had to be constructed to reach the cope track of this wharf and some 18,000 cu. yards of filling material along the Railway embankment had to be provided for an approach to this new trestle and the face of the pier.

Some 788 lin. feet of new tracks were laid to improve the track facilities at this wharf.

**DREDGING**

The operations of the season of 1933 include the dredging of the sites, the preparation of seats and assistance in the sinking of 3 concrete cribs incorporated in the upstream extension of the industrial wharf at Section 99, Montreal East, allotted to the McColl-Frontenac Oil Company. The Commissioners' equipment also carried out the filling of these cribs, the widening of the earth mole connecting the wharf to the shore, the backfilling of the wharf at Section 35, that of the superstructure of the Shell-LaSalle Oil Wharf and the completion of the Sun Oil Wharf mole.

Some reclaiming work was also done at the upstream end of the Racine Pier, Section 62 and backfilling at Section 58.

**Maintenance Dredging.**

A comparatively extensive amount of maintenance dredging was carried out in different sections of the Harbour.

Also the removal of existing obstructions in the shape of natural high spots which became more objectionable last season due to the abnormally low stage of the water. Floating Derricks were used as grab dredges for the clearing of the river bed of submerged logs and timbers, isolated boulders, wires, cables, etc.

It is the intention to resume this depth improvement in the Harbour during the next season which will permit the advertising of the same depth in the Harbour as that of the 30 feet Ship Channel.

### **Sub-aqueous Wharf Inspection and Repairs.**

During the season, the Harbour floating equipment was used in the work of examining the condition of the timber crib work of the wharves bordering the St. Mary's current and also of the seats of all the cribs so located.

In a number of places it was found necessary to do some underpinning work and desirable to provide protection in the shape of bagged and precast concrete aprons against future scouring by the strong current prevailing at these locations, particularly at the downstream end of the Victoria Pier where the Sailors' Memorial Tower is situated.

### **Sweeping and Testing.**

The usual amount of sweeping and testing operations were carried out.

The testing disclosed a number of solid obstructions in the main Ship Channel within the Harbour. These obstructions were previously recorded. They were found however to have increased in size and this fact, coupled with the natural reduction of the river depth this year, was the factor which decided the removal of these obstructions, bringing this part of the Channel, from the Harbour Bridge up to Victoria Pier, to the full standard depth of the ship Channel.

### Diving Operations.

The Harbour diving equipment gave assistance in the several sub-aqueous wharf inspections, their underpinning, to the wharf construction operations and was called upon on several occasions for public and private services.

The following are the quantities of dredging and filling for the Season:

#### DREDGING

Maintenance:	Cu. Yds (Scow)	Cu. Yds (Scow)
Inland Basin.....	550	
Sect. 12 and Fairway.....	15,650	
Basin, King Ed. & Alex. Piers....	9,950	
Basin, Jacques-Cartier and King Edward.....	4,500	
Basin, Jetty and Victoria Pier....	3,000	
Market Basin.....	3,250	
Ship Channel.....	775	
Laurier Pier West.....	250	
Basin—Tarte and Sutherland Piers	5,450	
Can. Vickers Dry Dock Basin....	22,000	
Entrance Channel—Vickers to Ra- cine.....	14,800	
Inside Channel-Longue Pointe to Racine Pier.....	11,800	
Imperial Oil Wharf.....	350	
(Representing an area for Main- tenance Dredging of approximate- ly 83,275 Sq. Yds)		

#### Capital:

McColl-Frontenac Wharf Exten- sion—Crib Seats.....	13,900	
Bank, vicinity of McColl-Fron- tenac Wharf, (for crib filling material).....	19,050	
Total Material from H. C. M. Dredge.....		125,275

**Filling** (By Derrick).

McColl-Frontenac Wharf Extens..	38,975	
Sect. 57-58.....	6,250	
Sun Oil Wharf.....	1,300	
Shell Oil Wharf.....	11,250	
Pius IX Blvd and LaSalle Ave		
Sewer Extensions.....	600	58,375

## (By Dump Scow)

To spoil bank.....		66,900
Total Material from H. C. M.		
Dredge to fill.....		125,275

**Sundry items of filling** (By Derrick)

## From Govt. Dredges:

Sect. 35.....	6,750	
McColl-Frontenac Wharf Extens..	5,350	
Sect. 57-58.....	3,125	
Sun Oil Wharf.....	8,350	
Shell Oil Wharf.....	10,000	
Racine Wharf Trestle.....	3,900	
Sundry Wharves.....	5,100	42,575

## Clammed Material:

McColl-Frontenac Wharf Extens.	700	
Sect. 35.....	3,200	
Sect. 57-58.....	2,650	
Sun Oil Wharf.....	1,450	
Shell Oil Wharf.....	750	
Raceway No. 7.....	2,925	
Guard Pier.....	1,075	12,750
Ballast, Rubbish, Etc. Guard Pier...		3,500

Total Sundry Items of Filling by  
Derricks:..... 58,825



**Earth, Cinders, etc. from City Contractors:**

	Cu. Yds by Team or Truck (Estimated)
Bickerdike Pier.....	18,500
Shed No. 10.....	500
Section 32.....	200
Sections 33-34.....	2,000
Section 35.....	16,500
Section 36.....	10,000
Laurier Pier.....	200
Aylwin Street.....	7,000
Section 48.....	7,000
Section 58.....	9,000
Section 59.....	11,400
St. Catherine and Delorimier St...	3,000
Delorimier and Demontigny St.....	800
<hr/>	
Total Material to fill by Team or Truck.....	86,100

**ELECTRICAL BRANCH****Power and operation:**

The Commissioners purchased, under contract, electrical energy from the Montreal Light Heat & Power Cons: throughout the year, this energy being supplied to their several sub-stations located at suitable points in the Harbour where it was transformed and re-distributed to operate their plant and equipment as well as to service Outside Companies operating within the Harbour boundaries, as follows:

	H. P. Hours
Memorial Tower.....	21,046
Receiving Shanty.....	322
Harbour Lighting.....	756,959
Railway System.....	1,198,526
Loco. Round House.....	92,791

	H. P. Hours
Traffic Shanties.....	6,702
Electric Hoists.....	21,826
Conveyor Galleries: Nos 1 & 2.....	633,838
Elevator No. 1.....	1,408,567
Elev. No. 1, Grain Trimmers.....	690
Elevator No. 2.....	925,460
Elevator No. 3.....	914,933
Elev. No. 3—Grain Trimmers.....	12
Elevator "B".....	812,293
Storage Warehouse.....	3,750,937
Head Office.....	119,244
Victoria Pier Office.....	34,906
Berri St. Office.....	7,172
Machine Shop.....	345,019
Guard Pier Shops.....	42,654
Floating Equipment.....	17,614
Outside Companies.....	1,464,908
Special Shed Lighting.....	14,723

### Electrical Sub-Stations:

*Sub-Station No. 1* — This station is located in the west end of Elevator No. 1 and is supplied by the Power Co. with 11,500 volts during the navigation season and only while the elevator is operating. At all other periods, it is serviced with 2,200 volts from station No. 4 at Beaudry St.

Everything west of Elevator No. 2 is serviced from this station including Elevator No. 1 and Galleries, Freight Sheds 2 to 15, Electric Hoists in these Sheds, Outside Companies and other miscellaneous Services.

The capacity of the station is 8,000 KVA and is interconnected with stations Nos. 2, 3 and 4 through tie-in lines at 2,200 volts. During the Winter season, it is entirely serviced from station No. 4. The primary power is transformed to voltages of 2,200, 550, 220 and 110 according to demand and distance to be covered. In the month of September, one of the old 2,000 KVA 2200/550 Power Transformers

broke down owing to hard continuous service, but this unit will not be replaced as other arrangements can be made.

*Sub-Station No. 3* — This station is located at the eastern end of the Harbour Yard Shops and is supplied with 11,500 volts by the Power Co. during the navigation season and only while Elevator No. 3 is operating. At all other periods the service is taken from Station No. 4 through a 2,200 volt line.

Everything in the eastern section of the Harbour is taken care of through this station including Elevator No. 3 and Galleries, Freight Sheds 44 to 47, Harbour Yard Shops, Locomotive Round House, Outside Companies and other miscellaneous Services.

The station has a capacity of 8,000 KVA and is interconnected with stations Nos 1, 2 and 4 through 2,200 volt tie-in lines.

The primary power at 11,500 volts is transformed and distributed at voltages of 2,200, 550, 220 and 110 according to demand and distance to be covered.

*Sub-Station No. 4* — This station is situated at the eastern end of the Storage Warehouse at Beaudry St. and has a distribution room at Elevator No. 2 which is also considered a part of the station. The Distribution room section which serves Elevator No. 2 and Galleries 16, 17, 18 and 19, Freight Sheds 16, 17, 18 and 19, Electric Hoists in Sheds 16-17 and 18-19, Outside Companies and other miscellaneous services, has a capacity of 3,000 KVA, 2200/550 units, water cooled and is only operating during the navigation season and only at such times as the elevator is working, at all other times, the services being taken care of by No. 4 Station. The power service is supplied by No. 4 station mostly and partly by No. 1 through 2,200 volt lines.

No. 4 Station proper is serviced by the Power Co. with 11,500 volts and has a transformer capacity of 8,000 KVA, the power being transformed and distributed at 2,200-550, 2400 DC and 110 volts according to circumstances and de-

mands. The station was constructed primarily to service the Storage Warehouse and the Electric Railway in addition to which it serves the whole Harbour during the winter season, and in the navigation season takes care of any other Station, Freight Sheds 24, 25, 26, 27, Electric Hoist No. 6 in shed 24, Harbour Lighting between McGill and Sutherland Pier, Coal Dock Sect. 58, Racine Wharf and Vulcan Wharf, Montreal Harbour Bridge lighting, outside Companies and other miscellaneous Services. It is also equipped with three generator sets to convert 2,400 volts AC to DC for the use of the Electric Railway, the sets are used alternately on the railway but are so connected as to be available for power factor correction in stations Nos. 1, 2, 3 and 5 during the winter season after the Canal is closed and the connecting 2,200 volt line is erected.

Therefore, this station is the only one operating 24 hours per day all the year round and is so connected through tie-in lines to take care of any trouble in other stations such as service failures.

*Sub-Station No. 5* — This station is located at Elevator "B", Windmill Point, and is supplied by the Power Company with 11,500 volts during the navigation season only. During the winter season a 2,200 volt tie-in line is erected over the Canal and the services are taken care of from either station No. 1 or No. 4.

The station has a transformer capacity of 6,000 KVA, the power being transformed to 2200, 550, 220 or 110 volts to suit the particular demand and the distance to be covered. The station is forced to operate 24 hours per day during the navigation season owing to its isolated position, a circumstance which cannot be avoided without the erection of a permanent steel tower to carry a 2,200 volt line over the Canal. This proposition has been looked into but has been temporarily set aside because of the economic situation.

### **Electric Hoists in Freight Sheds.**

The electric hoists in the freight sheds have been operated and supplied through stations Nos. 1 and 4, those located

West of Victoria Pier being supplied through No. 1 and the remainder through No. 4.

The hoist between sheds 4 and 6 has not been operating continuously and was finally closed down on November 28th, while that between sheds 24 and 25 only worked 8 days throughout the season.

The following figures show the activities of the individual hoists for the past three years:

Year	Hoist, Sheds	Teams & Trucks Carried	Days in Operation	Opening Date	Closing Date
1931	2, 3, 5	14,629	203	April 20	Dec. 12
1932		18,043	207	18	15
1933		16,467	214	12	16
1931	4-6	5,163	202	April 20	Dec. 12
1932		1,836	66	25	Sept. 20
1933		2,584	79	21	Nov. 28
1931	7-9	18,571	202	April 21	Dec. 12
1932		20,659	206	13	10
1933		18,617	203	15	3
1931	8-10	18,446	210	April 14	Dec. 12
1932		17,607	206	13	10
1933		12,335	203	17	9
1931	11, 12, 14	9,519	202	April 20	Dec. 12
1932		9,925	200	18	9
1933		11,972	207	13	13
1931	13-15	6,217	203	April 20	Dec. 12
1932		7,374	200	19	10
1933		6,734	202	17	9
1931	16-17	3,281	203	April 20	Dec. 12
1932		5,902	201	18	10
1933		5,945	205	17	13

1931	18-19	18,993	207	April	15	Dec.	12
1932		12,856	206		20		17
1933		13,385	221		17		30
1931	24-25	164	15	April	21	May	7
1932		156	9	May	11	May	20
1933		487	8	Sept.	19	Dec.	1

### Harbour Lighting.

The general lighting is a series system divided into four circuits. No. 1 circuit covers the whole of Windmill Point and Bickerdike Pier and is supplied through station No. 5, circuits Nos. 2, 3, and 4 extend from McGill St. to Vulcan Wharf. All the lighting is done by 600 cp. units except those on circuit No. 1 during the navigation season which have to be 1500 cp.

During the year, the lighting of the Montreal East Wharves at sections 96 to 110 was installed. These are multiple units of 300 watts each operating on 110 volts. There are six wharves with a lamp at each extremity to act as a beacon and an aid to navigation. In addition to the beacons, the Shell-LaSalle Oil Wharf has 4 similar units along its length for general wharf lighting, these being installed under a contract with the two Companies who are charged a monthly rate for the service. This lighting is grouped in three services as follows:

#### *Service at Marchand St.—*

Canada Cement Wharf	2	Beacon lights
Frontenac Oil Wharf	2	Beacon lights
Imperial Oil Wharf	2	Beacon lights

#### *Service at Monarque St.—*

Shell-LaSalle Wharf	2	Beacon lights
Shell-LaSalle Wharf	4	General lighting
Sun Oil Wharf	2	Beacon lights
British American Wharf	2	Beacon lights

#### *Service at Marien St.—*

Montreal East Wharf	3	Beacon lights
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This installation has several features of particular note. All the units are gas-proof owing to the nature of the cargoes being discharged, each of the services is controlled by its own photo-electric relay and is therefore automatic, being controlled by the intensity of the natural lighting. This system of control has proved very successful during the past season, requiring only periodical inspections.

The number of units in operation during the navigation season, taking into account all lighting units is 526, this number being reduced to about 125 during the winter. These figures cover the 400 watt multiple units which are installed along the river side of each of the freight sheds.

As already mentioned, the lighting was installed at the Montreal East wharves between sections 96 and 110. With this addition the lighting patrol was called on to cover from Windmill Point and Bickerdike Pier to as far East as these new wharves, as well as the Harbour Bridge. As it was impossible for men to patrol this area on foot, the Commissioners purchased a Half Ton Runabout Truck which is being used during the nights as a patrol truck and for the maintenance of electrical services during the daytime. Its unsefulness has been proved on several occasions since the month of August at which time it was delivered.

The lights are distributed as follows:

Series Circuit	No. of units
No. 1 Windmill Point and Bickerdike Pier....	59 lamps
No. 2 McGill St. to East End of Shed 11.....	74 lamps
No. 3 East end of Shed 11 to East end of Ware- house.....	79 lamps
No. 4 East end of Warehouse to Racine Pier...	123 lamps
Marine Tower Jetty, at No. 2 Elevator..	16 lamps
Outside Shed Lighting.....	154 lamps
Montreal East Wharves.....	19 lamps



## Montreal Harbour Bridge Lighting.

This is a series system divided into four circuits, two circuits on each side of the Bridge, each taking alternate units in order not to disrupt traffic in case of trouble. The four circuits are energized through two regulators in station No. 4.

### General:

The Electric Railway during the past year has not been added to in any way, the only work done being for the maintenance and repairs of the overhead already installed. At section 71, eight steel poles were erected in place of the wooden ones to carry the cross spans and anchor section. This change was made to offset the breakages to pole anchors due to being buried in the coal piles of the Company operating at this section. These breakages have been a source of trouble for a number of years requiring quite large expenditures on maintaining the overhead at the required height.

A certain amount of work has been carried out in connection with Services to outside Companies. The Canadian Import at Bickerdike Pier made application for additional power for their new hopper and conveyor. A further increase in service demands was made by the R. G. Lane (Canada) Ltd at section 62 who also erected a coal hopper. At section 35 the Reading Anthracite Coal Co. are now operating and taking power temporarily. Their intentions for the coming navigation season are to erect something in the form of a coal hopper and conveyor.

## MAINTENANCE

### Wharves

The Maintenance Force, in addition to ordinary patching of wharves, examination of and attention to sewer outlets, intake pipes and crib seats, taking care of bollards, ladders, fenders, temporary pile clusters, landings and floating

platforms used during the season by the different industrial companies in the Harbour, as well as the Elevator No. 2 Jetty bridges and stairs, carried out the following work:

### **Driving of Piles**

21 Piles at Section 62 for the Shell Oil Co.

24 Piles at Racine Pier for trestle.

7 Piles at Section 104 for Canadian Copper Refiners.

10 Piles at Pius IX Avenue in connection with sewer.

10 Piles at LaSalle Avenue in connection with sewer.

20 Piles at Guard Pier for mooring purposes.

### **Wharf Repairs.**

Repaired section of Jacques Cartier Pier opposite Shed 12.

Replaced 6 courses of 12'' x 12'' timber on upper side of High Level Marine Tower Jetty, Elevator No. 2.

Repaired upstream side and outer end of Sutherland Pier.

Repaired wooden stairway near Lachine Canal Entrance.

Repaired the surface of the High Level Wharf and the stairway at Section 11N.

Repaired area 90' x 7' x 10' of the face of the wharf at Section 41, as well as 60' of coping at Section 42.

Repaired pile face of Jacques-Cartier Pier opposite Shed 14, 60 existing piles being made fast to the wharf by spiking.

Repaired areas 75' x 6' x 10' on face of wharf at shed 4, and 65' x 6'' x 10' at Shed 6.

### **Buildings**

The usual maintenance of the transit sheds, grain elevator buildings, Cold Storage Warehouse building, etc. including a rather heavy programme of painting of elevators, was carried out by the Commissioners' Forces during the season.

## PLUMBING

The laying of sewer and water main extensions, the equipment of lavatory rooms, the repair and renewal of the plumbing system along the waterfront, including all buildings, transit sheds, grain elevators, owned by the Commissioners, were carried out by the usual plumbing force.

### Roadways, Sheds, Water Service, etc.

The general cleaning and watering of the wharves, roadways and Sheds as well as flushing of latrines, drains and freight hoists and periodical checking of all water meters was kept up during the season.

Water service to sheds and latrines was connected up by April 29th and kept in good order throughout the season. This service was discontinued on December 28th, except for sheds 8 and 47, which were kept open during the Winter.

The Sheds were kept clear of all rubbish throughout the season, the refuse, totalling 5,516 loads, being put on scows placed at the sheds for this purpose, and the scows taken away regularly when loaded. 14 scows were used during the season for this service.

2,986,788 cubic feet of fresh water was supplied to 580 ships during the navigation season.

The Quick Acting Gates in the Flood Protection Wall were kept in good working order at all times, and the steps placed at Sections 12, 14, 15, 18 and 19 for the purpose of allowing pedestrians on and off the wharves when the Flood Gates are closed, during the winter season only, were kept free of snow and ice.

The usual force of watchmen, etc. was employed to protect the property of the Commissioners, to guard the public from accident and to regulate the Harbour dumping grounds.

### **Life Saving Equipment**

The usual precautions were taken to facilitate the saving of life and the prevention of accidents by the maintenance of railings and the distribution of ropes, gaffs and life preservers at frequent intervals along the waterfront, and these proved their value on a number of occasions during the season.

### **Fire protection**

All hydrants and fire equipment were inspected daily and kept in readiness for service.

All fire extinguishers were recharged on April 19th and kept in operating condition, by daily inspections.

### **Railway Tracks.**

The usual track maintenance from Sections 12 to 101, including the replacement of rails, turnouts, switches, cross ties, upkeep of roadbed, maintenance of way, snow removal, etc. etc. was carried out throughout the season by the railway section gangs.

### **Harbour Bridge and Approaches**

General Maintenance of the Harbour Bridge and approaches was carried out during the year including repairs to concrete and asphalt, painting, clearing away of snow from the roadway and foot path, etc.

### **Paving**

1962 Square Yards of paving blocks were lifted and relaid at Bickerdike Pier, Sections 12 to 18, 23 and 24.

## **MECHANICAL EQUIPMENT**

The grain handled through the elevators continued to be far below the capacity of the equipment, and consequently, the maintenance and upkeep items were proportionately small.

The principal items of equipment attended to during the year were:

## **Elevator "B"**

The necessary maintenance and repairs were carried out; there was no new work done. Three sections or 179 feet of the upper end of Conveyor Gallery No. 7 were dismantled and taken down in September along with 3 bents due to the unsafe condition of the wharf upon which they were built.

## **Elevator No. 1**

12-15 H. P. chain drives were installed on cross conveyors. The necessary maintenance and repairs were carried out.

## **Elevator No. 2.**

The two 300 Bushel hopper scales in the Marine Tower on the Jetty were replaced by two 12,000 lb. Avery Automatic Scales. Each of these scales is guaranteed to give two weighings of 12,000 lbs. each per minute, with an accuracy of 0.5%. They were tested on October 5th and 6th and fully came up to the Guarantee.

Official Government Weights and Measures Inspection Certificates were issued October 7th, 1933. These automatic scales are the largest grain weighers of this type constructed to date.

The necessary maintenance and repairs were also carried out on general grain handling equipment.

## **Elevator No. 3**

The necessary maintenance and repairs were carried out; there was no new work done.

# **ELEVATOR AND CONVEYOR BELT REPLACEMENTS**

## **Elevator No. 1**

One 42" x 4 ply x 190 ft. long	No. 5 Cross over drive.
One 22" x 7 ply x 225 ft. long	Old marine leg.
One 35" x 7 ply x 444 ft. long	No. 6 Lofter leg.

**Elevator No. 2**

One 38'' x 7 ply x 307 ft. long	Marine Lifter No. 2 leg.
One 36'' x 4 ply x 150 ft. long	Transfer belt lower floor
One 36'' x 4 ply x 750 ft. long	Marine conveyor.

**Elevator No. 3**

Four 23½'' x 7ply x 185' long	Marine legs, 1, 2, 3, 4.
One 30'' x 4 ply x 390 ft. long	Curtains 2 and 4 legs.
One 36'' x 4 ply x 500 ft. long	Conveyor in tunnel

**Elevator "B"**

One 36'' x 4 ply x 106 ft. long	Conveyor
One 36'' x 4 ply x 270 ft. long	Conveyor
One 22'' x 7 ply x 212 ft. long	New Marine leg.

**Galleries.**

One 36'' x 4 ply x 1155 ft. long	No. 18A Gallery.
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**Hoists.**

All shed hoists were overhauled, platforms repaired where necessary and 25 hoisting and counterweight cables were renewed.

Cold storage hoists were overhauled, platforms repaired where necessary and 4 hoisting and counterweight cables were renewed.

Head Office Hoist was overhauled and 6 cables renewed.

**Cold Storage plant equipment.**

The refrigerating equipment in both the Warehouse and the Power House continued to give satisfactory service throughout the year, and was maintained in good operating condition.

During the year, 2733-100 lb. blocks of ice were made and delivered to various Harbour works and fleet.

### Harbour Yard Shops.

Due to continued comparative shortage of work during the year the shop forces were kept at a minimum, working only 40 hours per week for the greater part of the year.

The total number of orders executed in these shops and their allocation were as follows:

Elevator No. 1.....	38
Elevator No. 2.....	45
Elevator No. 3.....	39
Elevator "B".....	55
Conveyor System.....	36
Electrical Dept.....	93
Loco. Cranes, etc.....	84
Guard Pier & Ship Yard.....	211
Traffic Dept.....	243
Cold Storage.....	35
General.....	469
	—
Total.....	1348

A wide variety of work was carried out in these shops in a satisfactory manner.

### Floating Plant.

Vessels wintering on the Commissioners' Shipways were: Derrick No. 3 and Derrick No. 4. The hull of Derrick No. 4 was practically rebuilt and the machinery overhauled. No work was done on Derrick No. 3. Dredge No. 6 was docked at Canadian Vickers for repairs to Anchor keeper and to reinforce anchor slide and painting of hull. Tug "Aberdeen" was hauled up on the Commissioners' Shipway during the summer for repairs to rudder and to renew rudder post bushing. Dumper scow No. 38 was practically rebuilt.

The necessary repairs to the fleet were carried out the following units being put in commission at the opening of navigation.



Tug "Sir Hugh Allan",  
 Tug "Aberdeen"  
 Tug "Robert MacKay",  
 Tug "St. Peter",  
 Yacht "Messenger",  
 Dredge No. 6,  
 Three derricks,  
 75 ton Floating Crane,  
 Testing Boat,  
 Pile driver.

During the season the tug "David Seath" was fitted out for emergency. One more derrick was put in commission in November.

The tug "Sir Hugh Allan" was docked at Canadian Vickers' plant for renewal of two upper decks, painting, etc. on December 13th, 1933.

### FLOATING CRANE

The record of work done by the floating crane is as follows:

Number of working days.....	205
Number of days work.....	83

#### Total number of lifts:

Commercial.....	357
Commissioners' service.....	139
	<hr/>
	496

#### Average weight of lifts:

Commercial.....	11 tons
Commissioners' service.....	10 tons

#### Greatest lift:

Commercial.....	85 tons
Commissioners' service.....	75 tons

**Greatest tonnage from single ship:**

S. S. "Beaverdale".....	374 tons
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**Total weight lifted:**

Commercial.....	4058 tons
Commissioners' service.....	1305 tons
	— —
	5363 tons
Total weight lifted Season 1932.....	5236 tons
Total No. of lifts made Season 1932.	554

An interesting feature of the lifts made by the floating crane was the unloading of the Royal Scot train from the SS. "Beaverdale" in May and the loading back of the train on to the same vessel in November.

The 75 ton floating crane was docked at Canadian Vickers' plant for hull plating repairs, painting, etc. on December 6th, 1933.

**LOCOMOTIVE CRANES**

The amount of coal handled by our cranes from ships was less by some 100,000 tons than last year. The distribution of working time is as follows:

	1933	1932	1931	1930
On coal.....	89.1%	88%	82%	69.7%
On Harbour work.....	5.3%	9%	7%	7.9%
On Miscellaneous work..	5.6%	3%	11%	22.4%

Two new type 308 double truck locomotive cranes were purchased from the Dominion Hoist & Shovel Co., Lachine.

Crane Serial No. 3081 started work on the Harbour on July 24th.

Crane serial No. 3082 started work on the Harbour on July 29th.

These cranes now bear Harbour numbers 11 and 12, respectively and are rated at 30 tons capacity, 60 feet booms and the working weight is 90.8 tons including coal and water.

## EMPLOYMENT IN THE HARBOUR OF MONTREAL

The following table shows the maximum and average number of workmen employed by the Harbour Commissioners during the season of 1933, in the various operations of the Port, exclusive of men employed by the different contractors on Harbour construction work:

	Average	Maxim.
Grain Elevator System—Operation.....	287	322
Master Mechanic's Gang.....	49	79
Harbour Yard Machine Shop.....	89	104
Guard Pier Repair Shop.....	31	37
Shipyard.....	39	61
Cold Storage Warehouse and Power House.	46	50
Electrical Branch.....	94	121
Roads and Water Branch.....	43	47
Roadmaster's Branch.....	124	139
Plumbers.....	3	6
Wharf Repairs.....	21	27
Shore Equipment (Loco. Crane Operation).	33	39
Transit Sheds.....	32	52
Dredging Fleet: Crews of tugs, derricks, etc	89	103
Railway Traffic Dept.....	78	99
Police Department.....	45	47
Harbour Bridge—Toll Collectors.....	19	20
Fleet Watchmen.....	13	14

## WATER LEVELS

The depth of water for navigation in the Montreal Harbour Ship Channel and on the Sill of Lower Lock, Lachine Canal, is given in the following table:

	Depth on Old Lock Sill, Lachine Canal		Depth in Harbour Channel.	
	Average	Average	Average	Average
	1924-33	1933	1932	1933
May.....	19' 3"	19' 6"	32' 7"	34' 11"
June.....	17' 3"	15' 11"	31' 0"	31' 4"
July.....	16' 0"	14' 2"	30' 6"	29' 7"
August.....	15' 1"	13' 10"	30' 5"	29' 3"
September....	14' 5"	13' 2"	31' 1"	28' 7"
October.....	14' 6"	12' 5"	31' 8"	27' 10"
November....	15' 1"	12' 1"	32' 8"	27' 6"

AVERAGE DEPTH FOR EACH MONTH IN THE 30-FOOT CHANNEL AT SOREL  
(30 Feet at Extreme Low Water of 1897)

Year	May	June	July	August	September	October	November	High	Low
1919.....	38' 7"	35' 7"	32' 5"	31' 4"	31' 1"	31' 7"	32' 9"	39' 11"	30' 3"
1920.....	33' 7"	30' 10"	30' 4"	29' 9"	29' 4"	29' 4"	29' 4"	34' 8"	28' 3"
1921.....	34' 7"	31' 9"	30' 10"	31' 7"	29' 10"	30' 2"	30' 5"	37' 6"	30' 1"
1922.....	36' 0"	33' 9"	34' 2"	32' 2"	31' 2"	31' 3"	30' 11"	37' 8"	30' 1"
1923.....	38' 4"	34' 6"	32' 4"	31' 5"	31' 4"	30' 11"	30' 9"	39' 1"	30' 0"
1924.....	38' 7"	34' 5"	32' 5"	31' 10"	31' 11"	32' 3"	31' 3"	40' 0"	30' 1"
1925.....	35' 2"	33' 9"	32' 4"	31' 8"	30' 11"	31' 2"	31' 9"	36' 6"	30' 3"
1926.....	37' 4"	34' 6"	32' 10"	31' 7"	31' 1"	31' 3"	33' 2"	39' 6"	30' 6"
1927.....	34' 3"	33' 11"	33' 3"	32' 5"	31' 3"	31' 4"	34' 10"	37' 8"	30' 5"
1928.....	40' 3"	36' 6"	34' 0"	33' 0"	32' 8"	34' 0"	34' 2"	41' 7"	31' 7"
1929.....	39' 11"	35' 11"	34' 4"	32' 9"	32' 2"	32' 3"	32' 3"	41' 4"	31' 3"
1930.....	36' 4"	35' 6"	35' 1"	33' 2"	32' 9"	31' 8"	31' 0"	37' 4"	30' 3"
1931.....	33' 3"	32' 6"	31' 5"	31' 5"	31' 6"	31' 5"	31' 8"	34' 4"	30' 9"
1932.....	34' 11"	33' 3"	32' 10"	33' 0"	33' 9"	34' 3"	35' 0"	36' 0"	32' 0"
1933.....	37' 4"	33' 10"	32' 6"	31' 2"	31' 7"	31' 1"	30' 10"	39' 10"	30' 1"

## HARBOUR COMMISSIONERS OF MONTREAL—FLOATING PLANT—1933

Description of Vessel	Hull			When built	Engines				Capacity of Bucket	Depth to which Dredge can work	Remarks	
	Length	Breadth	Depth		Kind of Engine	No. of cylinders	Dia. of cylinders	Length of stroke				Pressure of steam
ft. in. over all	ft. in. beam	ft. in. over all				inches	lbs.	e.y.	ft.			
<b>Dredges</b>												
J. Kennedy (Boom Spoon).....	104 4	37 0	9 Fd.5	1892	Horizontal non-condensing	2	16	18	125	7 40	Steel Hull, Rblt. 1923-24	
No. 5 (Boom Spoon).....	104 0	36 2	11 0	1910		2	16	18	125	7 40	Steel Hull.	
No. 6 (Boom Spoon).....	104 2	39 2	10 9	1912		2	16	18	140	7 50	Steel Hull.	
<b>Derricks</b>												
No. 1 Clam shell.....	87 2	31 2	9 3	1899		2	12	14	140	..	Wooden hull, Rblt. 1925	
No. 3 Clam shell.....	77 0	27 6	8 0	1900		2	12	14	125	..	Wooden hull.	
No. 4 Clam shell.....	80 5	27 10	7 6	1892	Horizontal non-condensing	2	12	14	125	..	Wooden hull. } Rebuilt	
No. 5 Clam shell.....	80 1	27 10	7 6	1892		2	12	14	125	..	Wooden hull. } 1923	
No. 6 Clam shell.....	80 1	27 10	7 5	1892		2	12	14	125	..	Steel hull, Rblt. 1930.	
No. 8 Clam shell.....	87 5	31 0	9 3	1915		2	12	14	140	..	Wooden hull, Rblt. 1929.	
<b>Tugs</b>												
St. Peter (Fire Tug).....	74 8	16 1	8 6	1875	Vertical non-condensing	1	20	22	125	..	Wooden hull, Rblt. 1921	
Aberdeen.....	79 3	18 3	9 0	1895	Vertical condensing	1	16	24	140	..	Steel hull.	
Robert Mackay.....	80 9	17 6	10 0	1899		1	16	24	140	..	Steel hull.	
Sir Hugh Allan.....	130 0	26 6	15 0	1911	Vertical triple expansion condensing	2	25	24	180	..	Steel hull, twin screws.	
John Young.....	91 8	22 0	9 0	1911	Vertical condensing	2	40	18	140	..	Steel hull, twin screws.	
Passé-Partout.....	49 1	11 3	5 7	1912	Vertical high pressure	2	24	10	110	..	Wooden hull, Rblt. 1925.	
David Seath.....	75 5	18 5	10 2	1915	Vertical condensing	1	13	22	140	..	Wooden hull.	
Drilling and Blessing Boat.....	80 0	27 0	over all	1895		1	26	.....	100	..	Three 5 in. steam drills Rebuilt 1923.	

Motor Boat "Messenger".....	30	2	6	4	3	7	1926	Red Wing 100 H.P.	6	5	6	Wooden Hull
Testing Boat.....	81	4	14	0	5	2	1900					Two wooden hulls braced 16 ft. apart; overhauled 1924.
Grain Barge "Ethel".....	158	0	27	11	17	2	1910					Composite hull steel and wood; capacity about 27,000 bushels.
Dynamite Scow.....	25	0	15	0	3	4						
Floating pile driver.....	60	4	24	10	5	6	1896					
Floating Crane.....	200	5	43	10	10	0	1909	Capacity 7½ tons				Max. load at 51' radius 75 tons. Max. height of hook at 51' radius 100'.
<b>Scows</b>												
2 Flat scows Nos. 2 & 4.....	75	0	20	2	6	0	1876	67½ yards				No. 2 rebuilt 1925.
1 Flat scow No. 22.....	85	0	25	0	7	5	1891	150 yards				Rebuilt 1926.
1 Flat scow No. 23.....	85	0	25	0	6	9	1891	150 yards				Rebuilt 1925.
1 Flat scow No. 27.....	85	0	25	0	6	9	1892	150 yards				
1 Flat scow No. 31.....	85	0	25	0	6	9	1893	150 yards				Sawmill Floating Derr. Shop Floating Derrick.
1 Flat scow No. 34.....	85	0	25	0	6	9	1893	150 yards				
11 Flat scows No. 44, 47, 50 to 53, 55 & 57 to 60.....	100	0	30	0	9	0	1911-23	300 yards				No. 50 Rebuilt 1925. No. 52 destroyed and replaced by new scow built at Sorel.
2 Flat scows Nos 61 & 62.....	100	0	30	0	9	0	1925	300 yards				
4 Flat scows Nos 63-66.....	100	0	30	0	9	0	1926	300 yards				
1 Flat scow No. 67.....	100	0	30	0	9	0	1927	300 yards				
2 Flat scows Nos A-6 & A-7.....	40	0	24	9	4	6						Purchased 1926
1 Flat scow No. A-5.....	40	0	15	0	3	4						
3 Dump scows Nos. 36, 37 & 38.....	106	0	26	10	9	6	1900	200 yards				No. 36 rebuilt 1924; No. 37 rebuilt 1925.
1 Wharf Repair Scow No. A-4.....	40	0	15	0	3	4						
1 Diver's scow No. A-1.....	46	3	18	0	4	3	1924					
2 Dust scows No. A-2 & A-3.....	45	4	15	0	3	4	1926					
Timber Storage Scow.....	101	0	35	0	8	6						Old hull of floating con- crete machine. Machi- nery removed 1931.
3 Flat scows Nos. 21, 26 & 35. 5 Flat scows Nos. 28, 39, 40, 41 & 42.....	Destroyed in 1933.											
2 Flat scows Nos. 43 & 54.....	Totally unfit for use.											
1 Flat scow No. 46.....	Sold 1932, delivered May 1933.											
	Sold August 1933, not yet delivered.											



## INDEX

	PAGE
Average Depth in Ship Channel.....	117
Coal and Coke Imports.....	90
Cold Storage Warehouse.....	39
Commodity Tonnage Statement.....	41
Domestic Tonnage.....	78
Dredging.....	95
Electrical Branch.....	99
Employment Statistics.....	115
Engineering Report.....	91
Export.....	64
Extent of Wharves.....	93
Financial Statement.....	12
Floating Crane.....	113
Grain Elevator System.....	27
Grain Statistics.....	31 - 34
Harbour Railway Terminals.....	35
Imports.....	49
Inward and Outward Cargoes.....	20
List of Floating Plant.....	118 - 119
Maintenance.....	106
Miscellaneous Commodities.....	88
Police Department.....	40
Principal Exports.....	47
Principal Imports.....	45
Railway Construction.....	94
Sewers, Intake Pipes & Water Mains.....	93
Shipping.....	13
Tonnage Summary.....	89
Water Levels.....	115
Year's Activities.....	5



